

DECEMBER 1903

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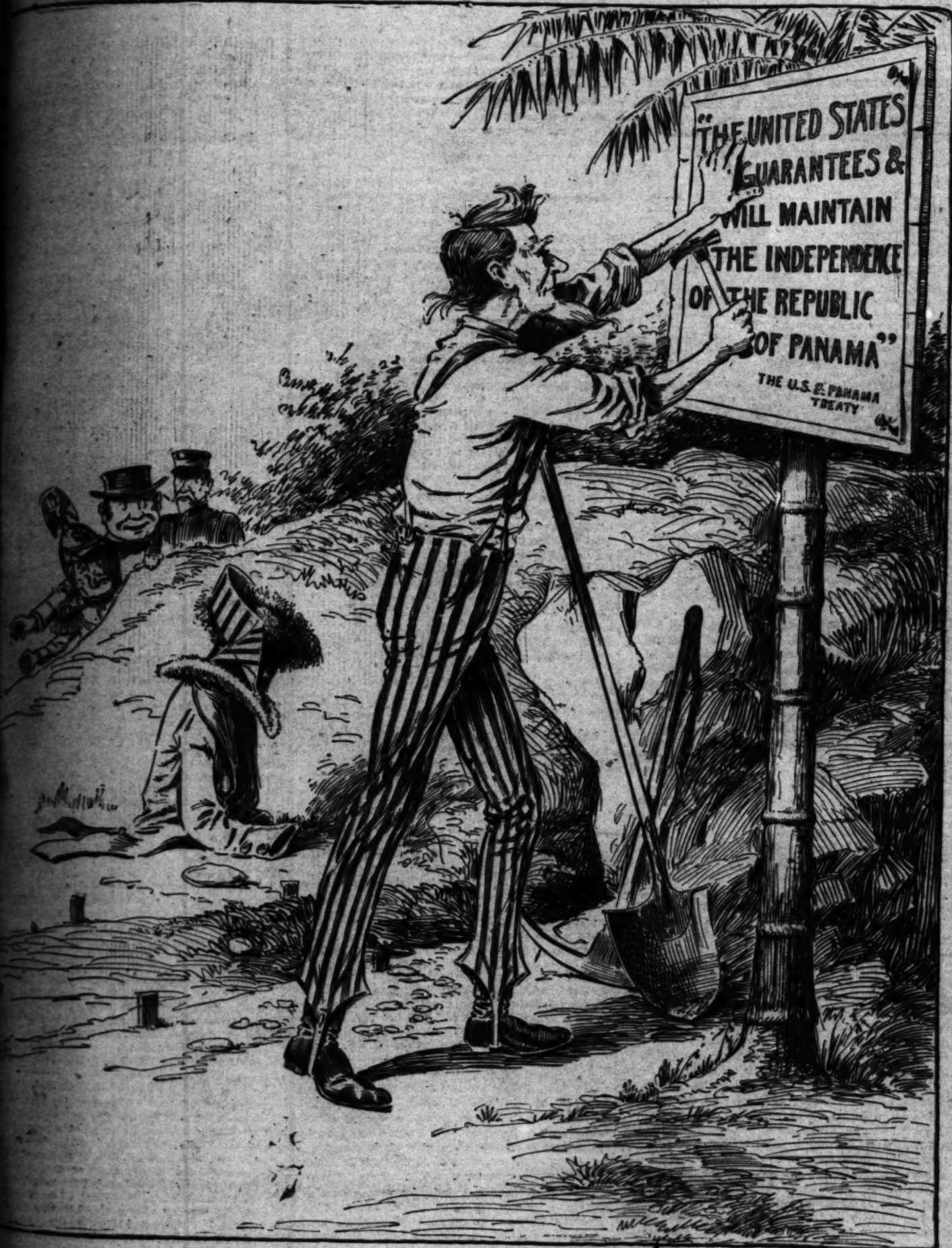
Illustrated Weekly Magazine.

Los Angeles Sunday Times

DECEMBER 20, 1903.

FIVE CENTS.

WANTS IT FULLY UNDERSTOOD.



Uncle Sam: I'll just tack this up, so that the boys will know what I propose to do.

For sale by all newsdealers; price 5 cents a copy, \$2.50 a year. Address THE TIMES-MIRROR CO., Publishers, Times Building, Los Angeles, Cal.

An archeological society has just Utah to investigate the antiquities in rich. Utah abounds in relics of a were not akin to the modern Indians. trial folk who used irrigation to raise mesic arts and utilities which are very the home of cliff-dwellers, but they referred to came later than they. Of the are the remains of one very interesting country, in Six-Mile and Nine-Mile Canyon, very interesting carvings on the rocks, be deciphered. Archeological Utah is known country, and is regarded as one in the United States.—Pittsburgh Courier.

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A Hundred Years Ago.

CHRISTMAS CUSTOMS OF OUR GREAT GRANDPARENTS.

By a Special Contributor.

WHEN the Pilgrim Fathers came to New England, they left all the festivals of the English church behind; and as Christmas was the greatest day in the mother country, it was banished from their calendar. As all peoples must have some holiday, they instituted Thanksgiving as a religious festival, and around it the merrymaking of the year gradually gathered. Edward Everett Hale writes that in Boston, even so late as when he was a boy, school was in session on Christmas Day, and there were no church services unless it was a Sunday.

On the other hand, the boys and girls of New York, at the beginning of the last century, knew all about good old Santa Claus and the brilliantly-lighted Christmas tree. If it were only for our most attractive social occasions, we Americans should hold a yearly Thanksgiving that the Dutch settled on Manhattan and enlivened our almanac. In New York.

The New York Christmas festivities, a century ago, lasted nearly a month. For weeks before, there were great preparations, until all the shelves and cupboards and store-rooms were crowded with goodies. Wagonloads of evergreens were brought in from the country; and just before the great day, the churches and homes were festooned and wreathed with fragrant boughs.

On Christmas Eve, the little ones hung up their stockings and went to bed early, that Santa Claus might see that they had good habits. The Dutch Santa Claus, we are told, had an excellent memory, and sometimes left whips in the stockings of those children who, he thought, needed punishment. Probably he knew that, after the first shame was over and they had formed good resolutions for the future, they could enjoy playing horse with the same whips. To even the good children, Santa Claus brought only a trifle, just some little remembrance to tell them that he appreciated their efforts of the foregoing year. He was the dear old spirit that loved to recognize whatever a child tried to be; but in those days of reindeer transportation, he was not expected to burden himself down with presents. With our electric conveyances, we make more demands upon the good saint's patience.

Early Christmas morning there was a shooting match for turkeys, and many a proud gobbler that had been terrifying the little ones received his just desserts at their tables. From this custom, our Christmas turkey-shoot of today is descended, although now it is generally held on Christmas Eve.

In the morning the family attended church together, and then returned home to a dinner so enormous that it is a wonder that, after one such feast a year, the children lived to be men and women.

Christmas evening was the delight of the children. They were banished from the living-room for a time which was brief in itself, but which seemed years as they waited, each one wondering what he would receive on the tree, and thinking how pleased mamma would be over his gift to her, or how surprised papa over his. Each member of the family prepared presents for all the others, but these tokens were carefully disguised in paper, before being sent to the tree, and no one, except the giver, was supposed to know the contents of a package until it was opened in the presence of all the others.

At last the door was opened, and the children thronged in, only to stand dazzled, at first. Was there ever anything in the whole world more beautiful than that evergreen pyramid glimmering with light, with its rosy-cheeked apples and gilt-covered nuts, and here and there those mysterious packages of every variety of size and shape? A hundred years after, we often see more wonderfully decorated trees; but it is doubtful if we get any more enjoyment from them; and it is certain that we do not understand their significance so well as did those children of a century ago.

Before the father distributed the packages, he spoke seriously a moment, calling their attention to the meaning of the tree at that season. The evergreen was to represent eternal life; the lights were to remind them of the "Light of the World"; the apples were the emblem of their youth, and the nuts, and the fruits they could produce by good works; while the presents were to commemorate the "Gift of Salvation" that Christmas brought to all.

Although the gifts were fewer and more useful than those of today, still each child's heart was filled with pleasure, not only from the enjoyment of what he had received, but also from the joy of those to whom he had given. A few simple games were played, and then the delightful evening was at an end, and contented hearts were soon drifting towards the Land of Dreams.

The "Day of Cakes."

The grown people of New York made their principal day New Year's, which the early Dutch called the "day of cakes." On this day, all the ladies remained at home and served cakes and wine and punch to their gentlemen friends; and a man must be ill indeed who did not call upon every lady of his acquaintance to exchange the greeting of "Happy New Year!" This custom, too, spread throughout the land until, in the last generation, it was stifled by the weight of its own added conventionality. However, no matter how soon the Dutch New Year custom may fade away, their Christmas celebration is so fixed in our land that it will remain with us as long as there is one child left to remind us of the Holy Infant of Bethlehem.

In the Old South.

In the Southern States, the early settlers had brought over the jolly old English Christmas celebration, and the spirit of good cheer still lingers there today. A hundred years ago, as now, Christmas was the great holiday of the year. Then, while man or black, free man or slave, all entered into the spirit of "Peace and Good Will to Men." Such

an event it was that the negroes used to date the incidents of their lives as so long before or after Christmas, and many an old darky still describes a great pleasure by saying that he "feels Christmas in his bones." Those slaves who were hired out always returned to their master's for the holidays. In fact, a hired-out slave's term of service ran from the day after New Year until a few days before Christmas, giving him always two week's holiday time.

For months before, the dinner was planned out by the cook and assistants. The biggest gobbler was noted, the finest porkling cherished, the sturdiest heifer fattened, the plumpest mutton selected, the sweetest ham set aside, and pickles, preserves, and home-made wines were all refined for the great feast. The week preceding Christmas, the kitchen was the busiest spot on the plantation. There were armies of cakes and pies to be made, and the finishing touch to the banquet, the plum pudding, had to be concocted with the assistance of all the children of the family. The woods were searched, and aromatic evergreens, the ruddy holly, and the waxy mistletoe transferred to church and house.

The day before Christmas, all the children of the plantation came home, the married ones from the new abodes, the sons from college, the hired slaves from their places of employment; and the hours until bed time flew in a happy reunion.

At the first ray of light, Christmas morning, there was a scamper of feet through the house, and the children and slaves, both young and old, ran from door to door calling: "Christmas gift! Christmas gift!" Crestfallen was he who had his cry anticipated by parent or owner. With such a hubbub, there was no sleeping late, that morning. As soon as all were dressed, the whole family, whites and negroes, were gathered together to exchange greetings. Then the master and mistress distributed their presents to the servants. Not one, from tiniest pickaninny to tottering grandire, but was remembered with what he would like best. The family themselves found their presents piled high at their plates, at breakfast. It is no wonder the children were so eager to get to breakfast, and once there, it is little wonder that their appetites were appeased by the sight of so many gifts.

After the meal, the mother and some of the children drove around to the cabins of some of the poorer white neighbors, and at each home a bountiful basket was left, accompanied by the good wishes of the season. Later all the family attended services at the church they had helped to decorate. Here, after the special Christmas celebration, they gathered at the door, exchanging greetings with neighbors and welcoming warmly those who had been wanderers during the year.

The Dinner.

Then they went home to the family dinner. If ever tables groaned, those set for the Christmas dinner in the South must have done so. At one end the large turkey, flanked by lesser fowl; at the other, a huge sirloin; at the sides, hams and spareribs and other dishes of every variety. There was joke and laughter as they ate for hours; then, when it almost seemed that they could swallow no more, the room was darkened, and the cook herself entered, bearing the blazing plum pudding. The children watched this climax to the feast breathlessly, while the father kept the burning liquid spreading over the globe. Then, as it burned out, they sighed in content, and each found special delight in tasting the part of the dinner that his hands had helped prepare.

Christmas evening was spent in house games, hunt the slipper, blind man's-buff, hide and seek, and such others as our great-grandfathers delighted in. All the family, from graybeard to toddler, joined in this sport. Then a fiddler was called in from the negroes' quarters, and the roof would ring with the old Christmas songs.

The following week, the young folks of the neighborhood gathered at a different house, each day, and there had dinner and a dance in the evening. Each neighbor was in turn host and guest. The negroes, too, had their entertainments every night, now a dance and again a prayer-meeting. So, for a couple of weeks, the south had a truly democratic time, when all hearts were moved by the one spirit of good cheer and good will.

New Orleans Customs.

Christmas in the early nineteenth century was celebrated quite differently in New Orleans from the manner in which it was kept in the rest of what we now know as the South. Although Louisiana had just been purchased from France, her customs, naturally, were still those of her mother country, and her Christmas festival was principally a religious one. The churches were beautifully decorated, and all those who were communicants prepared to receive the Blessed Sacrament on Christmas morning. The children, it is true, went to bed early on Christmas eve, after hanging up their stockings to receive presents from "Papa Noel." He, like the New York Santa Claus, came with trifling gifts, to reward them for their efforts to be like the infant Jesus. The elders sat around the fire, keeping the "reveillons," which was a watch for the day of the Nativity. They sang, and played simple games, and had a light repast of cakes and wine or orange-flower water.

At 11 o'clock the great cathedral bell tolled the hour, and every one hastened into his wraps. At half-past 11, the second warning bell sounded, and then a band of chorists marched round, singing the Christmas hymn, "Venez, Mon Dieu." At midnight the chimes rang out gladly, and a grand Te Deum welcomed the new anniversary of the Lord's birth. After a mass, the people exchanged Christmas greetings and passed home to get a few hours sleep.

On Christmas morning, everyone went to high mass; and, after mass, filed in processional order by the Virgin's altar, to view the Crib. This represented the stable at Bethlehem, with the Holy Infant in the Manger, Mary on one side and St. Joseph on the other. A silver star in the East was guiding the Three Wise Kings aright; the shepherds were kneeling in reverence; and above, a band of angels were carolling the first Christmas message to the world. As each member of the congregation passed the Crib, he bowed head and knee and offered up a prayer to be made able to follow in the footsteps of the Holy Child. Then they all went home to a good dinner, but

the mind was kept more on the infant than on their individual pleasures.

In the following week, the family gatherings until New Year's Day. Uncles and cousins met at the house of the family, and the grand old ones served. Then, too, there was an exchange of presents, and the children felt that each new year began auspiciously.

In California.

At the beginning of the nineteenth century, Christmas was not a part of the United States. Her Christmas was a thing of the past, even from those of Louisiana, where there were no presents, but there was a feast.

The people from the country of the State, they stayed with relatives for weeks. Such a crowding of these weeks. One grandmother tells me her mother was a little girl, sometimes they fasted during the Christmas holidays; but the old folks testify that they were not so little girls with secrets to tell. The Indian servants along, and all in the house, just as if they were at home.

The whole town, church, houses, were arrayed in evergreens, brightened with the California holly and the golden pine. Eve, every one assembled to watch the play called "La Pastorela." This had been a parody to teach the Indians the story of the infant, but the white people all enjoyed it, and each boy or girl felt specially might act in it. The play depicted the mil who was tempted by the devil to desert. After each argument Satan advanced an answer based on faith, and the girls would break into an appropriate act, the angel lifted a curtain and in the Manger. This entirely vanished, went off scowling and growling, and forth into the old Christmas hymn, and the whole audience sprang to its feet with heart and voice.

As the new day approached, the church and waited to celebrate midnight. Benediction was given, they passed around which was similar to that of London, home to rest until aroused by the music. This was begun by the first who arose, and as its strains penetrated to the voice after another was added, until the household proved that he had returned to Day.

On Christmas morning they attended church who were old enough received communion. They enjoyed a dinner that could not be at New Orleans, and in the afternoon they fought. This was not so brilliant as the one which was held in Spain or Mexico, but it was to these descendants who had not yet tests their fathers had viewed.

With so many visitors in town, days were in merrymaking. The December was so warm for outdoor life, and so "merienda," or picnic, on the beach. On December 26 they played pranks. This is Christmas Day, or the Feast of the Innocents, and the children set aside by the early church in the infants slain at Bethlehem. In California, stuffed cakes with wool, used as a misleading questions, just as we do, but to the one caught, they told. It is preferable to our "April Fool."

During the holidays, as at other times, children were generally put to bed one night when they were ready to go to bed. The day of the Epiphany, the day on which they brought their offerings to the infant, known in European countries as the close of the Christmas festivities. On January 5, each child placed his offering under the door so that the Blind Men could find it. The Wise Men now brought their offerings, and the children's remembrances were small, a whole little seeded candies, but they enjoyed the parting with their visitors; for on Twelfth Night, all the relatives and friends came to their own homes, and Christmas was over.

CLOTHES OF FASHION.

The late Lord Salisbury shared the regard for clothes, and several of his coats hung fairly well from the wardrobe. He cared little, but he never forgot to wear his Gladstone, whose clothes were of an eminent person would wear hats were enormous affairs, quite out of size, and much more respectable. The headgear was generally in the category. While in attendance in the stone dressed fairly well, but on the little attention to his garments. The great departed are, on the other hand, especially Lord Rosebery, who himself with the turn-over peaks, comfort and durability. Mr. Balfour is very smart on social occasions, and not endeavor to attain the well-known Chamberlain.—[London Men and the

It is reported that the man who bought another for \$1000. This was a slump in ears.—[Toronto Globe]

December 30, 1903

Christmas
THOUSANDS
CHRISTMAS

By a Sp

WHILE most good home enjoying the will be hundreds professional lot must

Of course, these people form a class who are interested in modern

A young newspaper writer that such people thought of a big eastern crowd of men of all sorts and

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conductor: Oh, yes, but it's not very merry, longer without increasing time of year makes

and all their relatives through the trolley car the holiday seasons, it moderate everybody, a

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still, even a conductor Christmas spirit in him a little enjoyment out other time. Why, sometimes laughing at some

to throw off the car in the air—I don't know people with their but who they're for, of the feeling of the

of course, we're glad to like that at Christmas time all the time; but enjoy it while it lasts.

On Christmas Day, those of us who Christmas morning to be presents, and other night to be at home, the nickels and dimes and pockets from so regular—who ride or forget all about the who ride on the

It wouldn't take a big pile of small pieces of money. Well, yes, some men who have people think the from money, but if they only

in making elaborate and I think we're in other stations in the and all put together on the occasion, and

By a Special Contributor.

Concerning the use of the Christmas tree, Chambers' "Book of Days" says it is probably a remnant of the custom of carrying trees in the magnificent ancient pageants on triumphal occasions, or in any great religious or festival procession. But why did they carry trees? It is known that the oak was sacred to the Druids as the symbol on earth of Hesus, "the type of an absolute Supreme Being." Hence groves of oak were sacred to the Druids.

The word *doli* (*dol*) is an abbreviation of the word *Idol*, a small image or representation of any patron god or goddess. These images or idols were worn as amulets by most of the Indo-European as well as Jewish races, with the belief that the reigning deity would preserve from harm and prosper the wearer. Hence, the *Idol* (*dol* or *doli*) was a sacred symbol, and one to be cherished, of the deity to whose cult they adhered for the particular benefits to be derived. In some countries wherein the deities are represented under diverse emblems—half human, half beast, or otherwise—the images are "whipped, broken, and deposed, or painted, palled, and greased," according to the issue, unfortunate or happy, of the matter in hand. We do not suppose that a symbol is regarded more than that which it symbolizes; but many Christian devotees carry about their person effigies or images (or idols) of Christ as sacred

The boar's head is a symbol of power and Great Britain. The animal grunts and is very fierce. It was formerly used in the chase through dense forests was even dangerous, because of the horns. But the baron who could display a boar upon his Christmas table, did so with pride. The boar has become so nearly extinct that it is hunted off by means of modern weapons. If many heads will be served this Christmas.

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By a Special Contributor.

"En possum—fal possum—w'en bacon is 12 cents a pound!"—[Atlanta Constitution.

At the "Popular."

WHY MARIAN'S VIEWS OF THE ENTERTAINMENT ALTERED.

By Mrs. Charles Stewart Daggs.

Author of "Mariposilla," "X-Ray Stories," "Studies From an Earthquake Shock," "Chinese Sketches," etc.

"TOM," said Marian, "I have a plan—let us go to the Popular."

Her husband elevated his eyebrows. "Go to the Popular on Saturday night! That is the people's show—surely you have not forgotten that swell society turns out on Monday evening."

"Forgotten!" laughed Marian; "I should say I had not. Haven't we been adorning select lodge parties for six years? I am heartily tired of dressing for the 'Monday night bill'; what I want, this evening, is to see the people who go to the Saturday night show, not the stupid, monotonous performance. I want to go early and sit back where I can watch the crowd come in. I want to study fellow creatures who are not in my set."

"Oh! I see," said her husband. "Yes, I want to enjoy the true 'Popular'—the one Frank Norris described in his brutal masterpiece. Of course, you know that real vaudeville is the audience—not the pink-cheeked acrobats and horse-play artists?"

"I have often thought so, as I watched the acts of an unconscious audience, augmented by an elect circle of posers," Thomas assented dryly.

"I know just what you mean," said Marian; "and I shall never forget the night society turned out to see Marjorie Willowbaker. You know she had just gotten her divorce the week before, and, of course, everyone thought she would sing her captivating coon songs with emancipated dash. You know how she used to warble them off in a drawing-room, leaning forward over the back of a chair? The effect was great—fairly contagious! Don't you remember the time she sang at our house? Shirley Brooks and Teddy French were then both in love with her. I really feared they might fight a duel before the night was over. Well, you know how it came out. She turned both of the boys down, because she thought the man she married, and left three months after, had ducts to burn. He supposed that she had ducts, too; and, altogether, it was a little vaudeville farce from the beginning. Of course, when Marjorie got her divorce, and went on the 'Popular' circuit, society turned out in full force to see her. You were at San Francisco at the time, and I sat in a loge with the Carringtons. Did I tell you about it?"

"You spoke of the eventful evening, but I have forgotten what you said, except that Marjorie wasn't game," her husband answered.

"Game!" repeated Marian. I wish you could have seen her posing for an injured darling, in simple white muslin. Her hair was parted and plastered to the sides of her head like a young deaconess; but artless attire was the only huge part of the repertoire. Shirley Brooks conducted a large box party, composed of youthful hawks, who had come prepared to whoop it up for their injured Marjorie. Of course, the boys expected her to come out in her usual dashing way; but when she appeared in the little muslin frock, scarcely lifting her eyes to the boxes, her hands clasped demurely about a single white rosebud—the poor children lost their sand—simply forgot their parts. 'It seemed so dreadful,' Reginald Howard told me afterward. 'So dreadful to see the poor little thing standing up there all alone! Marjorie, you know, is a perfect young giantess—six feet at least. Wasn't it rich? We just couldn't stand it,' Reginald declared. Then he got confidential. 'You see,' he went on, 'we all got to thinking about our own sisters—and instead of giving the jolly we had planned, we sat still, like fools, all through her first song. She didn't seem a bit like old, gay Marjorie, and we saw that she was totally crushed. We simply wanted to rush out of the house and kill the man who had done it.' When I smiled dubiously, the boy looked so hurt that I had not the heart to enlighten him—and then, you know, I always stand up for my sex—so I comforted him to the best of my ability. 'Yes,' he said, 'it was a shock to see her so rattled, and at first I thought I would jump from the box and get her a chair to lean against. And I think it would have helped her,' he decided so ingeniously that I almost laughed; but instead I looked quite sober and kept Reggie's confidence. 'Her songs didn't seem to have a bit of spirit left in them, did they?' he half apologized, with the hope of being contradicted. 'No,' I answered, 'she sang miserably.' 'How did she lose her voice so soon?' he asked. 'She never had a stage voice,' I told him. 'Well, perhaps not,' he consented, 'but she used to be awfully sweet, and I still believe she might have sung all right, if she had stood back of a chair. I suppose we made ridiculous asses of ourselves,' he owned so humbly that I laughed. His face was the color of a scalded crawfish while he explained that he had told the fellows to jolly up, but that they had refused to do the stunt. 'When we sent the flowers on, I suppose they looked like funeral pieces, and, by George! the whole shooting match was exactly like an old funeral, anyway,' he fairly exploded. It was all rich, Tom; I wish you had heard him. Let me give you another cup of coffee. If we are going to the 'People's Show,' you will need it."

Thomas crooked his left eyebrow. "Well," said he, "I suppose I shall have to encourage your psychological bent."

"I will be ready in a second," cried his wife. "You see I am all dressed in my walking suit; as soon as I put on a hat, we will start. Please ring for Jane, dear, and tell her we are going out; she will have to sit in the nursery with baby. Give her the last Harper's to read—I think I left it in your den. You're such an old darling to go when you are tired, but just see if we don't have a good time."

Marian fluttered away, to hurry back as she had promised.

"Shall we walk? It is so early that you will have time to smoke."

Her liege lord lit a cigar. "Tonight I am personally conducted," said he.

"Then," said Marian, "you shall do it all, even see the willing victims feed at Hovey's after the show."

"Please take the bank book," said her husband, delving into his breast pocket.

"No, you may keep it; I feel quite economical tonight. I shan't want a check before the first of the month; when my dream hat comes home I will let you know."

Her lord puffed resignedly at his lighting cigar.

"The blooming thing must be ready for delivery," he declared. "I saw it last night when I had the nightmare."

"Was it the bill that made you scream?" asked Marian. "I think I am very indulgent to let you smoke in the street," she went on, as they left the house. "You see our 'Popular' does not offer the full inducements of Norris' San Francisco show; there men are permitted to tint the air blue."

She fastened her gloves with effort as her husband raced her down the street.

"What a grand night to walk!" she exclaimed.

Five minutes later Mrs. Marian was lagging in the rear.

"I don't think this climate was made for pedestrians," she stated. "Perhaps, after all, you might finish your cigar on the outside of the car. When we have gone four blocks from the next corner, I think we had better ride; I really don't believe I can walk farther. But I shan't mind sitting inside of the car by myself," she told him, panting.

"You are too angelic; I shall throw the cigar away, when you do the four blocks," Tom agreed.

"Then we might walk more slowly. Perhaps you won't miss much of your comfort—for one night only—and I promise you a hot tamale after the show," his wife jested. Her breath came hard with the hopeless effort to qualify her lord's long pace.

"If we could only do the blocks with a two-step, it would be much nicer than walking," she cried out artfully, as a flashing headlight turned the corner.

"Yes, we both dance beautifully," Tom agreed.

He gathered her up gaily and landed her on the rear platform of a downtown car. Marian saw the cigar fly into the darkness like a lost meteor; then she tried to look sorry.

"I wanted you to finish it outside," she whispered.

"Yes, I know you did," her husband answered. His eyes glowed with lights that seemed to jest at her avowed self-denial.

"You know I wanted you to smoke," Marian repeated.

"Yes, of course, but I thought I would swear off for the evening in view of the hot tamale."

They both smiled, then straightened their faces to the conventional expression enforced by people of the world who go forth in a trolley car. Calm toleration sat upon Mrs. Marian's aristocratic brow for the next twenty minutes. When the car stopped before the theater she seemed to have no visible interest in vaudeville ethics, and psychological studies drawn from the representative ranks of "McTeague." As she joined the silent, intense procession slowly making its way to the box office, she shone with elect luster. The simplified result of correct clothing and careful grooming stamped her position in a shrewd line of vulgar color, marked with daring crops of peroxide hair. Amid dull faces, expectant faces, bold faces, hard faces, pained faces, pallid faces, old faces, young faces, homely faces, and faces with claims to uncultivated beauty, Marian's was the one feminine countenance expressing high-born tranquility.

"Wait for me at the gate," said Tom; "I'll join you there."

The wife moved obediently from his side, meantime noting his slow approach to the "Mecca" of cheap tickets.

It was, indeed, a night for the people. As Marian stood apart, she saw that unattended women punctuated the creeping line; as if to allay suspense, each lonely female clutched her half dollar talisman, for the magic window. Several exercised their jaws with wads of garlic-smelling gum; perhaps in defiance to supper exchanged for a show ticket. There were also modest-looking working girls, who had come together from the same neighborhood, without the high distinction of swains to escort them. Then, there were gaudily-dressed damsels with young men, who doubtless boasted of Saturday night dates, and, "a steady" for the show. Slouching along the line came the man with the heavy breath, who would be sure to go out after each performance, returning, as he had departed, upon the toes of a human sidewalk. Marian hoped devoutly that this creature would not get a seat in a row with Tom. She thought she should like to be near the nice-looking family just passing through the gate. She wondered if their little outing was not due to the eldest daughter's betrothal to the young man by her side. Yes, she was sure of the fancy, for she had bought all of the tickets, and was so polite to the bent, hard-worked mother. Marian had only time for a quick glance at the undiminished line as her husband joined her.

"See the old chap counting his change by the window," she whispered; "a miner just in from the plains, with nothing smaller in his wallet than twenty-dollar gold pieces. It's very interesting; I like it much better than Monday night," she confided, when they had slipped through the gateway.

The orchestra was making ready for an opening selection, as they entered the house; when they found their seats, well to the rear of a packed, expectant audience, Marian threw aside her jacket, and settled herself with content.

"Isn't it fun to be in a place where you don't recognize a soul?" she asked.

"I imagine so, but this evening you have the advantage," her husband answered. "I have a wide circle of friends in plain sight. Right over there is the janitor of the building; in the very next row I recognize our favorite elevator boy and his best girl; my most entertaining client, the Widow McGinnis—ex-washerwoman, and possible heir to a New Mexican gold mine—has already bowed to me. Altogether, I feel quite at home."

"Of course, you would know some one," Mrs. Marian answered proudly. "It must be interesting to be a public man; great fun to rub up against all kinds of people," she added complacently.

Rag-time music now stirred the feet of the audience.

Big horns blazed crisp, unhallowed snare drums marked the contagious

Marian's little hand-sewed shoes

patronizing glee.

"It's so much fun," she whispered,

boy peppered the air with sugar

Marian could not tolerate a rain of

when one hit her straight, aristocratic

"Dr. Shaffer's sworn statement on

ling to extract teeth without pain, must

some of these people; just see that

of lemon tablets," she whispered.

"Yes," said Tom, "Shaffer's

antidotes; just to read one stops all

With a thundering clash rag-time came

curtain rose.

"Too bad," said Marian. "I haven't

advertisements."

"Those hold over," Tom stated

den bloomed out behind a pink and

gled lights.

An instant later, an assistant, pre

gler, came from the wing. Madam

with an artful knowledge of side-line

returned, she bore a basket of colored

glance at Madam's black satin discolor

accentuated charm over large hips and

established her true role in the perform

stood with the open basket before her

was, indeed, a shapely accessory to

a trick which was a pretty one, posing

hap, while the audience applauded, as

disappeared, at the will of the wizard,

ball rose to the roof, perhaps from the

gler's classic nose; the next instant the

ing "world's to conquer." The economi

drew cheers from the gallery. In front

woman who had never been to a show

nounced such skill as the devil's own

"Oh!" said her boastful grandson, "his

the sword act; he's just a little better

till he drinks fire and eats razors."

"Well," said grandmother, "I wouldn't

had known it was so dangerous."

"Don't be scared," coaxed the lad

here show ain't a circumstance to some

to see Aggie and the lions. Gee Whizz!

worth paying for. Nothin' happened to

showed in Los Angeles, but Jim Black

up in San Francisco."

The old woman jumped in her seat.

low a woman to fool with a lion. Such

hope to see again," she protested, as

to swallow a Damascus blade. The old

face with her knotted hands, but her

vociferously.

The next act was a repetition of

ferent order of artist. The creature

was billed for burlesque, and appropri

linen duster; a dilapidated stovepipe

besmirched, leering countenance; his

broken umbrella. This time the fema

atrocious humor, portrayed the Bowe

insinuating jests and double-cross

successful ending to a rank attempt

she twirled her body like a human

crossed her arms behind her back, and

until her fingers wagged from her

let's umbrella finally demolished a

ing a set of cheap crockery, she turned

saunts, while the audience yelled. Only

to appreciate the comedy of the act.

"What a shameful waste of dishes!"

"You bet they're insured," her grand

Immediately following the first

from above; and grandma jumped to

as a shower of brick bats, potatoes,

fell to the stage.

"Well," she whispered, settling

never see two bigger fools in my life."

It was now time for contrasting

tain fell upon debris, an ethical mon

the footlights. His material ran glibly,

of crude philosophy, interspersed

feller, and the "four hundred." Lou

each allusion to the Vanderbils, and

coated orator concluded with a sad

parable of the "Prodigal Son," a

the house.

"My, but that was fine!" said the

New Mexico. He turned to Thomas

for comradeship. "An excellent piece

gentleman assured him. "I low he

speakin' for a long time," the other

candor. "Now I couldn't stand up

way if I was give the biggest gold

There ain't nothin' teaches me like

never got no good from namby-pamby

the bush; when I hear of religion bein'

want its durned value assayed. I say

to smell brimstone when he's done

forgot my catechism, even if I don't

Law sakes, but she's a daisy!" he

lit in the center of the stage.

"Next to good speakin' I like

best of anything," he confided.

But conversation languished. C

him, with gurgling, gusty delight, the

grew dead to all about him. "My,

he cried, as his inamorata flung

sight. "She's all right," he roared. His

infant close at hand, and screams beca

accompaniment to the dancer's high

young mother attempted to quiet her

would not be comforted.

"What a shame to bring a baby

Mrs. Maria indignantly whispered.

She was answered by the accus

the seat in front a woman turned

and tragic looking

repeated patrician jud

and your baby," she

nothing only on

begged the woman

and soon the charm o

waiting. In the musi

to the arms of hi

peacefully:

the curtain rose

and let out with drink

class environment f

of store cush

star. Her dashin

arrangement of dry

making in public.

Second, she look

beneath this was an

finger—Jusque—la

a song punctuated

ly refers to the si

there she proceeds

accidentally discov

telegram sent by a

that the entire we

be in Honolulu nest

elle's suspicions ar

the message, which

past Sunday," is now

stamps the torn

once wildly around

past Sunday! Lulu

anon.

flash from her h

on she has worked

her unsuspecting

with crelonne pl

she cries, springi

lulu next Sund

fly, and the surpris

tries to rise as the

he waltzes all over

his hair. In terror

deluged with a po

his feet, the real

the air; the hat

glass decanters crash

in ecstasies—cheer

again! Hit him

grandma holds her

calm ensues, for

half of the telegram

ation takes place.

ect finishes with an

jokes as a climax

," said Marian, "let

ough."

the best of the bill

are fine," he remo

care, I hate them

the hot tamale?"

he gained the street

"Joke," she pleaded

as cured me; the hab

and we came," she

ing, and I wanted

that most of these

but for ourselves, T

id. To be sure, this

on ever before. The

upper afterward, and

unhallowed memory of the contagious time. Sewed shoes tapped the floor. She whispered, as the man with sugared projects, aristocratic nose, and statement on the curtain, without pain, must be a creature; just see that man devour the whisperer.

"Shaffer's advertisements are one stops all trouble in the dash rag-time ceased, and the man. "I haven't finished making."

Tom stated drolly, as a pink and white jasper. An assistant, presumably Madam, smiled and edge of side-line effect. A black satin directoire coat, over large hips and lavender role in the performance. basket before her legs. accessory to art. Then, worthy one, passing off without applause, as balls. The will of the wizard; sometimes, perhaps from the tip of the next instant the air was full of. The eccentric orbits of the gallery. In front of Madam, been to a show before the devil's own.

ful grandson, "this ain't a little balled up at paws and eels razors."

mother, "I wouldn't have been so dangerous."

coated the lad maliciously, circumstance to some; you know. Gee Whizz! She gushy 'thin' happened to her the, but Jim Black saw her p.

umped in her seat. "It's a with a lion. Such wickedness, the protested, as the juggler blade. The old soul came d hands, but her grandson

repetition of jugglery, but the. The creature who now a, and appropriately clad in, dated stovepipe hat emblem; maintenance; his magic wand, time the female, attended

trayed the Bowery. She double-cross winks. At a rank attempt by the fable, like a human corkscrew. The hind her back, and turned

ged from her ears. When demolished a weak-legged black, she turned a series of yelled. Only grandmaster

waste of dishes!" she exclaimed. "I'm sure, to listen to such stuff is. To be sure, this show was no worse than some

ted on Monday night, but it seemed much. The good clothes of our friends, and incidental settings to high life, have made the difference. Tell it not in Gath, Tom,

anough with this sort of thing. I do not say at melle is coarse and horrid, but for myself I

not fine to separate the harmless from the foul. I with the crowd simply from cowardice. I have

deigned stupid horse-play shows, and when they vie, one's self-respect must either deteriorate or

ed. For good reasons we ought to begin to er ideas; and I am not preaching, either," Mrs. ed on we will read Shakespeare every evening,"

ed. "You shall not darken a show that is dably pure."

needn't make fun of me, for I mean what I say. I have been horribly weak to keep going. I have seldom enjoyed," she went on, excitedly,

is blinding and elevating to be sitting with a party. Then find it impossible either to lift one's eyes,

And to think that some of these same edu- college-bred individuals, who ought to know bet- to a vulgar horse-play performance from frank

"You might get the appointment of grand censor of variety shows," Tom retorted.

"I should like to have the power to act," she declared, spiritedly. "I would then restore the clean, old-fashioned hippodrome; that was a real delight."

"Of course," said Thomas; "and we could always take the baby to see the animals."

San Yeh's Christmas.

SHOWING THE ADVANTAGES OF THE HOLIDAY IN ORIENTAL EYES.

By a Special Contributor.

SAN YEH (disregarding uglier if less powerful deities, grimacing from obscure corners of the temple) gazed up into the face of the mighty joss and was sad.

The devil of rheumatism rioted in San Yeh's bones. And soon would come the glad New Year, and he had no gift for the gods.

True, with the popping of the first firecracker in the middle of the night, announcing the advent of the Chinese New Year, his debts—which, according to the Chinese custom, awaited the expiration of no sordid statute of limitations—would be wiped out. The fact that those debts were gambling debts did not disturb him, but the fact that he dared risk scarcely another penny at fan-tan did.

For barely had he enough of his last greasy earnings (he carried his day's expenses in his ear, for convenience and the greater secrecy of the remainder of his money, which was in a bag on his chest, next his skin, to keep him in rice, not to mention chop suey, till the warm weather should come and he could work again on the rancho.

And now he had no gift for the joss. Not that he expected any amelioration of his present woes from such sacrifice; simply, he held the shrewd Chinese notion of warding-off future troubles.

So he gazed up at the joss, folding his hands resignedly in opposite sleeves of his coat.

Passing out, he glanced up at a chrysanthemum-laden balcony, and thought dolefully of a certain charming Chinese lady, who divided honors equally with the joss in the power of her influence to call forth presents.

Not that any of these things were mirrored in San's face, as he pattered painfully and noiselessly up the Chinese-lanterned street; for they were not, nor was anything else. Only you must take my word and the following events for it, that these were the things of which he was thinking.

A wide-open door, the glaring light from which put to shame the soft light of the lanterns, appealed to him.

Inside were Chinamen, seated about in little groups, and in the midst of each group was a white lady or gentleman, evidently teaching something. The place was the Methodist mission school.

San Yeh, his face still expressing nothing, entered and took a seat in the rear.

After the group, with a noise of moving chairs, had disbanded, and resealed themselves before a platform, a Chinaman sat down at an organ and played, and they all sang a hymn. Then a lady stepped upon the platform and told them about Christmas—what it meant, that it would soon be here, of the rewards, spiritual and temporal, connected therewith, provided for the faithful, and other things which seemed to interest San Yeh, for he listened. A kind-faced lady noticed him, and hastened up with a smile on her gentle face, and hands outstretched.

"Welcome!" she said with cheerful cordiality. "You wish to come and learn?"

"Ya-ah—I heap want to learn—biful lesson—I heap love God!" announced San Yeh, still with no expression whatever in his face.

Whereat the kind-faced lady beamed, and wrote his name in a book.

They sang again, and dispersed, and San Yeh went home. But no Tuesday evening thereafter knew him absent from the Methodist mission. He joined a class, and learned to sing, to the delight of all, himself particularly, "Shall We Meet Beyond the River?"

The next night, being Wednesday, he strayed, with apparent aimlessness, along the chief street in Chinatown. Arriving at a dark stairway, he passed up, and at the end of a dim hall an illuminated sign announced: "Baptist Mission. Come to Jesus."

San Yeh limped painfully in.

"All," said a gentleman in the midst of the room, "who will give their hearts to the great service, shall be rewarded, and will please stand up!"

San Yeh, being already on his feet, did not sit down.

Then some one pronounced a benediction, and San Yeh, looking timidly about him, let his long, almond eyes rest on the fair face of a young girl.

She recognized a stranger, and fell a call to his side, and he said plaintively: "Me lost—me wantee be saved."

"Ah, my dear man," she said fervently, "that is easy;" and she wrote his name in a book. And thereafter Wednesday night never failed to bring San Yeh to the Baptist mission.

The next night San Yeh, as if to relax after the severe mental and spiritual rigors to which he had been subjecting himself, gambled all night, and—won. And he put the money away in a little sandalwood box at home, but on Friday he sallied forth bravely and entered the Episcopal mission, and was received hospitably, as ever. Here he professed a childlike trust in the powers of salvation as expounded by that sect.

Christmas Eve arrived. San Yeh's face almost shone, as became that of a much-redeemed sinner.

Out in the street he walked beneath the soft light of the Chinese lanterns, and hobbled into the Baptist mission. A Christmas tree was in process of being stripped. Presently San Yeh's name was called. He received a package and opened it, finding a bible. He grunted, and put it into his sleeve. He waited expectantly. Again his name was called. The fair young girl, his teacher, had made him a practical present—a decent purse with a dollar bill in it.

Over at the Methodist mission he arrived a little late

for the festivities; his name had already been called, but as he entered, a thoughtful countryman, who had considerably impersonated him, handed him a package, which he opened, disclosing another Bible. "Humph!" said San Yeh, and thrust it into his sleeve.

Christmas night found him in the Episcopal mission, and there, from amidst the gilt and glitter of another Christmas tree, he received a prayer book and a hat, of the latter of which at least he was sorely in need.

Next day he was down town in a book store.

"Me heap too many Bible!" he announced sententiously. "Me sell, you buy!" which they proceeded to do, and San Yeh jingled \$1.50 in the purse that still held the dollar bill, (Already he had sold his hat to a fellow Chinaman.)

San Yeh looked up into the face of his joss, and his arms were full. It was the morning of the first day of the Chinese New Year.

Gazing upward, a smile, childlike and bland, dawned on his face, played about his lips, illumined his eyes, and spread until his whole face beamed.

Down before his idol he laid punk sticks, candy, a jar of ginger, a sandalwood box, some red paper with prayers on it, and a little bulb.

Then, as he straightened himself, still smiling and gazing upward, his rheumatism-racked hands in his sleeves, he murmured in English:

"Heap—dam—good!"

GRACE KINGSLEY.

UNQUENCHABLE FIRE.

BOWELS OF THE EARTH BURNING BENEATH A RAILWAY STATION IN SCOTLAND.

[TR-Bits:] It is not generally known that in Scotland, not more than three miles out of Glasgow, there is a fire raging at a railway station which has been going on for months, and, notwithstanding that tons of water have been poured upon this insidious fire, it cannot be put out. It seems incredible, but it is nevertheless true.

The details are as follows: Several months ago a waste piece of ground close to the station was wanted by the railway company as a siding. The level of this ground was too low, so truckloads of refuse were "dumped" on it to bring it to the necessary level. A large proportion of this refuse consisted of rotting vegetation, and in the course of a little time it heated to such an extent that combustion set in and started not only a smouldering fire, but flames actually burst through the ground.

Attempts were made to quell this fire, and it was thought, after several weeks of hard work and tons of water, that it had been put out. What was the surprise, however, to see it break out afresh in another place and nearer the station. Fears then began to be felt for the safety of the station buildings, especially as the main double line to important coast and country towns led through it.

Fresh energy was then brought to bear and much more water was poured on this fire, which seemed to have its stronghold in the bowels of the earth, but from the volume of steam and smoke issuing from innumerable crevices it was seen that the fire demon was resisting all efforts, and was slowly creeping nearer and nearer to the foundations of the railway station.

It was now whispered and soon became known that the station had originally been built upon a sort of shale which came out of the mines in the near neighborhood years ago. These shale mounds have been known to take years burning right through, and the stench from them is anything but pleasant.

Now, when it became known that the fire referred to was gradually eating its way to the foundations of the station, a mild sort of alarm began to be felt, not only by the railway company, but the aristocratic passengers who daily use this suburban station. For the mines have been worked out, and hundreds of beautiful villas have arisen out of their ashes—so to speak.

The fire gained ground every day, until by-and-by it reached beneath one of the platforms, and any day thereafter might be seen the novelty of a crowd of people waiting on a platform from the chinks and crevices of which were arising in many places jets of steam from the fire below. Such a volume of water was kept continually playing upon it that actual flames were prevented from showing above ground, but any casual observer could see the evidences of the great heat below.

In time it was observed that the foundations of the station were settling and cracking and twisting in many places, and all sorts of efforts had to be resorted to to keep the buildings from being permanently injured. At this present moment, as these lines are being penned, the fire has reached under the main line of the track, and it is one of the curiosities of the neighborhood to see the jets of steam and smoke issuing from between the sleepers.

It is now a foregone conclusion that the fire cannot be extinguished, and it is being left to have its own sweet way and burn itself out. When this will happen nobody knows, as there is a large part of the foundation of the station not yet reached; and as this has been going on for many months it is quite probable that this fire in the bowels of the earth will go on sapping under the station until the buildings tumble about the passengers' ears.

CAKE WAS SUFFICIENT.

Wife: John, is there any poison in the house?

Husband: Yes; but why do you ask?

Wife: I want to sprinkle some on this piece of angel cake and put it where the mice will get it. Wouldn't that kill them?

Husband: Sure; but it isn't necessary to waste the poison.—[Chicago News.]

THAT DOES IT.

"He seems to have a complication of diseases."

"So he believes."

"How do you account for it?"

"I think he's been reading a patent medicine advertisement."—[Philadelphia Press.]

The Genial Idiot.

HE EXPRESSES HIS VIEWS ON THE SUBJECT OF PRESENTIMENTS.

By John Kendrick Bangs.

"MR. IDIOT," said Mr. Pedagog, the other morning, as the guests gathered at the breakfast table, "do you believe in presentiments?"

"It all depends upon the presentiment," replied the Idiot. "Sometimes I believe they are the instinctive prophecies of a nature peculiarly receptive to exterior impressions. Sometimes I think they are mere fakes. When a girl falls upstairs and immediately has a presentiment that she won't be married that year, in nine cases out of ten it isn't so much superstition that impels her to that belief as a sad realization that she hasn't any man in her grip, and there isn't anything in it. If a man is up in a balloon 10,000 feet above the earth and the thing bursts, and he has a presentiment on his way back that something is going to happen to him when he lands I'm inclined to think there is something in it. And so it goes. There are presentiments and presentiments. Do you happen to be suffering from anything of the sort this morning?"

"In a way, yes," said Mr. Pedagog, with a slight shiver. "For several days now—in fact, ever since Thanksgiving, I have been much worried by a vague apprehension that something is going to happen to me. I don't know precisely what the thing is, but somehow or other when I'm walking in the street there is a persistent feeling inside of me that a sign is going to be blown off a building and drop on my head, or something of that sort."

"Mercy," cried the Idiot. "Really? Well, you want to get rid of it right away, Mr. Pedagog, for it is one of the most dangerous presentiments a man can have."

"It is likely to come true, then?" inquired the schoolmaster, anxiously.

"No, indeed," said the Idiot. "That's the queer thing about that special presentiment. It never comes true itself, but in spite of that it is a most perilous apprehension in its general effect upon the victim. I had a friend once who suffered from it, and the things he went through because of it were enough to kill any ordinary man. Fortunately he was constitutionally a giant, and he survived, but until he got the presentiment under control, his life wasn't worth five minutes' purchase."

"You interest me hugely," said Mr. Pedagog, uneasily. "Would you mind outlining your friend's case for my benefit?"

"Certainly not," said the Idiot. "Only too glad to because it may help you out of your own predicament. The chap's name was Swallerbox. He was a New Englander by birth and came of mighty sturdy stock. When he was in college he played center on the varsity eleven, and rowed number three in the crew. I tell you that to give you some idea of his physique, and to explain how in spite of all that happened to him he survives to this day. After taking his bachelor's degree he became a book agent and sold 'The World's Deepest Thought,' in one volume, in the West for two years, after which he came to New York and became a member of the Curb Exchange on Wall street. Everything went well with him until three years ago when he was suddenly seized with this awful feeling that on his way to business some morning a sign would be blown off a building, would fall on his head and knock him out. Try as he would he couldn't rid himself of that apprehension, and when he went to bed at night he was almost afraid to go to sleep for the obsession was so strong he dreamed the thing was happening all the time. Tommy Wiggins, one of his classmates, roomed with him at that time, and he told me it was awful the way Swallerbox yelled in his sleep, and jumped out of bed at all hours of the night to escape the signs he thought were falling on him."

"Your description is terribly graphic," cried Mr. Pedagog, breathlessly. "I have all those symptoms. Only last night, while asleep on the divan in my den, to get away from a great gilded sign bearing the legend 'Minzesteimer & Jones, Undertakers,' that I thought was falling upon me, I leaped from the couch and landed sprawling upon my work table, upsetting the ink and maulage pots upon a series of mathematical drawings it had taken me two weeks to make."

"That's sure proof that you've got a bad case of it," said the Idiot. "And I'm sure the story of Swallerbox's experience will profit you. He got so he didn't dare walk on the sidewalk, taking instead the middle of the street. Well—you know what that means. The first thing that Swallerbox knew he was knocked out by a trolley car, and enjoyed a period of three weeks in the hospital. While looking for flying signs he had forgotten all about the flying juggernaut, with the result that when everything was cleaned up, he was minus two toes and had a dent in the back of his head big enough to hold a walnut. Of course he made money by the episode, because the railroad people paid him \$2500 for his toes, and allowed him \$500 extra for the dent, and he drew \$50 a week from the Accident Insurance Companies for the time he was laid up, but as he put it afterwards, money isn't everything. He told me he'd rather live in the lap of woe for a year than limp about for a minute with a pocket full of money and no toes to speak of. Swallerbox had been a divine dancer, you know, and the loss of his toes gave him a lurch that spoiled him for the two-step, and it made him sensitive. 'The Boston Dip is the only dance I can do,' he wailed, 'and that has gone out everywhere except in Boston, and I don't know enough to live there.'"

"I cannot sympathize with an empty mind," said the Bibliomaniac, who had never danced.

"Nobody asked you to," said the Idiot. "It's the empty shoe we're talking about. But Swallerbox learned his lesson. Presentiment or no presentiment, there he was. The pedestrian must walk on the sidewalk, whatever his premonitions, or take the consequences. It hadn't been rammed home to Swallerbox that the sidewalks belonged to walkers, and the streets to the trolley companies until he had had the argumentum ad hominem presented to him with

a bone-breaking force. So, after he left the hospital, although his presentiment remained with him, he walked like a sensible man upon the sidewalk."

"I'm glad to hear you say that," said Mr. Pedagog. "I always do that, for, unlike your friend, Mr. Swallerbox, I have never yielded to my fears sufficiently to try to escape them through greater dangers."

"Good," said the Idiot. "Your case is not so extreme as was that of Swallerbox, which is a point in your favor. Well, Swallerbox came back to the sidewalk. Experience had taught him that a premonition was one thing, but that the conscious seeking of danger was another. As between signs and trolley cars, he had learned that the latter had been proved by human experience to be inevitably the more dangerous, whatever his nervous system prompted him to avoid. But now whenever he espied a sign he kept his eye on it. If it seemed rickety he turned aside to avoid it, but his caution proved his downfall. One morning he left his apartment uptown to go to his office on the street, and his premonition was so strongly upon him that he made up his mind the thing he most feared was due to happen that very day. 'Today is the appointed hour,' he muttered to himself as he left his home. 'No matter by what means I seek my office, the sign will fall.' He went so far that morning as to make his will in which he left his debts to the Metropolitan Museum of Art, and whatever was left to his room mate, Wiggins, and then he set out."

"And no sign fell upon him all the way down," interrupted the Bibliomaniac. "I know the kind of story you're going to tell."

"No, you don't," said the Idiot. "It is true that no sign fell from the beginning to the end of his walk, but what did happen was that while keeping his eye peeled for loose signs, he overlooked a great yawning coal hole beneath his feet. The result was that Swallerbox fell through the chute into a bin below the sidewalk, just in time to receive a couple of tons of pea coal, which was in process of delivery as he disappeared, in the small of his back. It took one hour for him to get out, for in spite of his yells for help, nobody was aware of his presence below until the janitor came to see if the bins were full. Meanwhile Swallerbox had had about eight more tons of granulated anthracite poured over him, and when discovered was the living picture of a badly used-up stoker of African descent. I don't believe he has got the coal dust out of his system yet. So you see, Mr. Pedagog, that that presentiment, while the thing itself may never come true, for what it involves along other lines, is one of the most dangerous in existence."

"And was Swallerbox ever cured of this nervous apprehension?" asked Mr. Pedagog.

"No," said the Idiot. "But he's got it under control. Finding himself unable to get rid of, he determined to make the best of it, and now it has become one of the great pleasures of his life. He goes about seeking signs to fall on him. When he heard that the windiest corner in New York was down by the Flatiron Building, he deliberately went down there and stood until he saw there were no signs on the block to blow on him. Then, disappointed, he went across to the other side of Broadway, or Fifth avenue, and whenever a sign really was blown off a building, he would try to get under it, but without success. The nearest he came to being hit was when one passed within three feet of him one day last March. He butted it with his head as it came down, but he didn't consider that that counts as a fulfillment, because it was he and not the sign that did the business. Lately he has taken up sign-chasing just as a good many people go in for golf or fox hunting. Whenever he has a holiday he starts out early in the morning looking for one to fall on him."

"He must be crazy," ejaculated Mr. Brief.

"No—he enjoys the sport of it just as Mr. Bib. here, enjoys the chase for a rare first edition of the New York City Directory, or some other choice bit of literary property," said the Idiot.

"But there is no physical danger in book-hunting," alleged the Bibliomaniac. "I should be a fool to endanger my head for the sake of my fad."

"Swallerbox has arranged all that," said the Idiot. "He is prepared for any emergency. In the first place, he has practised being hit by a sign in his room. He has a huge board suspended from the ceiling by a length of clothesline. By touching a spring the board is made to fall, and, by long practice, Swallerbox has got so that he can catch it on his shoulders, on the back of his neck, or on the crown of his head, without hurting himself a bit. You see he has made a game of it, and has become not only an expert, but a real enthusiast on the subject."

"Bosh," said the Lawyer. "Some day when a real sign falls on him all his science won't save his cranium. One good crack will give him his quietus, however expert he may be."

"Nope—you're wrong," said the Idiot. "For he is all ready for it. Whenever he goes out he wears a football headguard, so you see—"

"We see what you are coming to, Mr. Pedagog," laughed the Doctor. "If you follow the Swallerbox method."

"I should not choose it, I must say," smiled the Schoolmaster. "If there were an alternative."

"There is," said the Doctor. "A little less pumpkin pie and a little more pepsin will cure you of any presentiment you may have. These numerous apprehensions and terrible dreams are the result of bad digestion. You don't need to go sign-chasing, but to take better care of your stomach."

There was a pause for a moment, and the Idiot rose to leave.

"Say, Doctor," he said as he reached the door. "I wish you'd give me one of those pepsin prescriptions for nervous presentiments. I have a terrible one of my own this morning, and I want it cured."

"Well, I don't know whether one of your hallucinations will respond to normal treatment," said the Doctor. "What is your presentiment?"

"That on the first of the month, I'll find my letter box full of bills," said the Idiot. "It keeps me awake nights."

"That," replied the Doctor, "is beyond the reach of pepsin. I've tried it myself and I know. There is but one remedy for that, Mr. Idiot."

"What is that?" asked the latter.

"The Gold Cure," said the Doctor.

"Not permanent,"

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SUNRISE.

The golden sandaled morning
All smiles and glad and
Is tripping down the mountain
With trailing skirts of light
And every little streamlet
Is laughing with delight.

In every shady canyon
The birds in one glad throng
Are vying with each other
To sing the morning song
With many a trill and coo
In their catches short and long.

But the valley is in shadow
And o'er it clinging still
Is the mantle of the night
So damp, and, oh, so chill
And every green thing shivers
With a little quaking thrill.

Ah, those who on the mountain
Live all their happy days
Seem wonderfully favored
To us who upward gaze
From the low plane of the valley
Where the first beam never passes.

And we so often murmur
Oh, is it not unfair
That we should plod the valley
While they are dwelling there
That some few souls may scale the
That we may never dare?

That some have all earth's favors
That some have all the sun
And all the world goes singing
With every day begun
While we have many shadows
And have many hard days done.

Some paths lead o'er the mountain
Some through the valley low
But does it matter really
By which path we go
If it bring us home at even
In the sunset glow?

MONEY IN THE SCRAP HEAP.

Many thousands of dollars are saved to the companies each year by detaching men to look after their scrap, the pieces of iron and steel and moving cars, that come from abandoned machinery from broken pieces of equipment.

Almost all of the big transportation companies in the United States maintain what they call scrap heaps. At two or three points on the road, generally where there are any construction or extensive repair shops, they gathered from all parts of the system.

One of the duties of the track walkers and men is to pick up and throw in little heaps along the bits of iron and steel that may be found here and there, or that may be left whenever any piece is completed. At irregular intervals a scrap train is sent over the road for the purpose of gathering up the ends. They are taken to the gathering place and there carefully sorted.

Some ingenious mechanics have devised means to separate and handle these scraps. After being sorted a sort of hopper that divides the small and the large other different sizes, men are put to work to select from the various heaps what may again be used in nuts, bars, couplings and the like, which may be laid aside, later to be turned again to some further use. The refuse, amounting to thousands of pounds, is shipped to some iron works that have with the company for using all this waste material.

This plan of systematically caring for the scrap of railroads is of recent origin. It is one result of the Of course, pieces of iron and steel, waste material, refuse of shops or wrecks have been lying about for years, but only in a desultory and haphazard manner remained for modern management, which is naturally to discovering little new economies of money underneath this novel idea of saving money.

NATURE'S EXTREMES.

The coldest place on earth inhabited by man is Umanak, above the arctic circle, in northern Alaska. The thermometer there drops to 98 degrees below zero in January, but sometimes rises to 85 degrees above zero in the shade in July, dropping, however, to the zero on the warmest summer nights. The hottest place on earth is the interior of the great Sahara Desert, where the thermometer rises to 122 degrees above zero. The place is Greytown, Nicaragua, where the mean annual fall is 260 inches. The place of least rain is in South Africa, where less than an inch sometimes falls in a year.—[Washington Star.]

LEG-PULLING.

Wigg: There's a new course in physical culture that makes you taller.

Wagg: That's merely a leg-pulling device.

phia Record.

WHAT HE PREFERRED.

"I think I ought to give you a whipping, Mother."

"What have you to say to that?"

"I think I would prefer the absent treatment."

thoughtful reply.—[Chicago Post.]

Good Stories.

THEY ARE ANECDOTES.

VARIOUS.

Compiled by

the Goods.

O one who has met a

known as a "drumme

lity. Their expedien

no limits in their ef

the Rushe, who sell

has, tells a good one

one, whose twinkling eye

ment of a joke are on

rollin. When Mike w

male house, the firm

meant a good custom

Now Pat was a cou

sent the latter out o

mannan's account. M

several heart-to-heart

was obdurate. His rep

no use, Mike; I like

order will I ever ag

Mike fingered around

It was Saturday, and

with an itinerant f

who were great patro

they were in funds.

an accident, and coul

ar, and cried that he

ough he was a general

any wanted to be ent

the track had brough

here was where Michae

ing out your fiddle," s

that's the use?" says P

without a man to p

be a man could be

like cradilly. "Maybe

it" says Pat.

ay, yes; stranger things

Donegal.

that, Mike put the b

an, played the sweete

the jigs and merrie

of dear old Ireland.

do you like it?" say

here and play for th

own price."

the price is," says M

five barrels of whisky

a bitter pill for Pa

yielded. Mike Rushe

old stories of the Em

in the wee small hou

exhausted, but happy

aded where others had

the strongest and slaun

Tulare.

Had to Go.

ty and varied are the

series of the show. H

ation until now. Fred

circus tells the story.

was playing at Atlanti

"mammy," accompan

panies, visited the show.

ely limited, but every

"privileges," as the c

Mr. Colored Man and

to the big tent, he

monade, for peanuts

ows. How to raise m

all-important question

only the colored man

for the gate. As he

his friends. "Aln't y

he anxiously inquired.

Just as soon as I kin

plied. And by way o

all dun bought poan

do snake charmer, a

man, an' de 'lastic a

it, de money was dun

show, so ole Jinny she

who have tried to se

being inveigled into th

can appreciate this.

He and the Cowboy Tr

MORLEY'S great "Life

light upon some

Old Man's character by

its pages, but also in

others. From all sorts

a fresh crop of anecd

following capital story.

for. It seems that sh

Rule Bill an enthusias

the vanquished leader, d

of his regard, and he

it by special envoy, he

thoughtful parishioners a

on frequently to London

After expressing his

red, Gladstone eterna

an estimate of the A

and extraordinary people

and no wonder you

most financial acun

this as an example,

Good Short Stories.

NEW ANECDOTES GATHERED FROM
VARIOUS SOURCES.

Compiled for The Times.

and the latter,
said the Doctor. "And now
by John Russell Smith."

SUNRISE.

andated morning,
and glad and bright
down the mountain,
ing skirts of light;
little streamlet
ing with delight.

ady canyon,
in one glad throng,
with each other,
the morning song;
a trill and quaver,
atches short and long.

ey is in shadow,
clinging still
le of the night mist,
nd, oh, so chill
reen thing shivers,
le quaking thrill.

ho on the mountain
their happy days,
derfully favored
upward gaze
w plane of the valley,
first beam never plays.

often murmur;
not unfair,
ould plod the valley,
y are dwelling there—
oulds may scale the height,
may never dare?

ave all earth's favors—
have all the sun,
world goes singing
lay begun,
ave many shadows,
many hard deeds done?

lead o'er the mountain,
ugh the valley low;
matter really,
path we go,
us home at even,
set glow?

E. R. Smith.

THE SCRAP HEAP.

ollars are saved to the railroad
stalling men to look after
ies of iron and steel that
from abandoned machinery
equipment.

g transportation companies
what they call scrap depots
on the road, generally where
extensive repair shops, this
of the system.

the track walkers and repair
y in little heaps along the
that may be found along
left whenever any piece
ular intervals, a scrap train
urpose of gathering up these
taken to the gathering place.

hanics have devised machines
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t, men are put to work to pick
what may again be utilized.
the like, which may be used
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ome iron works that has a
using all this waste iron and
ically caring for the waste
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on and steel, waste material
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utlory and haphazard way.
management, which is directed
the new economies of opera-
of saving money.—[New York

THE EXTREMES.

earth inhabited by man is
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drops to 90 degrees below
rises to 85 degrees above
ing, however, to the freezing
nights. The hottest place
the great Sahara Desert, it
rises to 122 degrees. The
agua, where the mean annual
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than an inch sometimes

G-PULLING.

course in physical cultur
a leg-pulling device.—[The

HE PREFERRED.

you a whipping, Bobby,
ou to say to that?
er the absent treatment,
ago Post.

an astonishing letter from a gentleman styling himself 'the cowboy preacher,' asking me to send him a contribution for his new church in some remote prairie village. I wrote the reverend gentleman that, while my interest in foreign missions was very great, the demands upon my purse nearer home were constant and imperative. I naturally supposed the incident closed, but what do you think that extraordinary person did? Mr. Gladstone paused and looked at his visitor with twinkling eyes.

"Well, sir," he went on, "imagine my surprise on receiving another letter from him some weeks later, thanking me in the most embarrassing terms for my letter of refusal. He had immediately upon its receipt organized a bazaar, and putting my letter—in which, by the way, I had praised American enthusiasm and zeal—putting my letter, sir, up at auction, he had obtained seventeen dollars and thirty-five cents for it, which, he stated, was far more than he had ever expected to get 'out of me' from the first. A people like that can achieve any destiny."

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The Retort Courteous.

THE late Bishop Williams of Connecticut, who was famous for his wit no less than for his unique way of preaching the gospel, was sitting in a box with an elderly lady at the commencement exercises of Trinity College, at that time held in the Hartford Operahouse, and always an extremely fashionable function. The toilettes of the ladies were elaborate and ultra smart, and after sweeping the house with her lorgnette, the bishop's companion uttered a little cry of admiration and said: "Honestly, bishop, did you ever see anything like it in your life?"

"Truly, madam," replied the bishop; "never since I was weaned."

Rough on Napoleon.

A FEW years ago a lecturer was touring the Northwest, and was engaged by a good old Catholic priest to deliver a lecture for the benefit of his church. The lecturer selected the subject of "Christian Education" as being a fitting one for the occasion. Before the discourse a programme of musical and elocutionary selections had been arranged, and while this was being rendered by local talent the lecturer and his reverend host sat in dignified torture on the stage of the "operahouse." Suddenly the priest, who was more renowned for piety than for a knowledge of the pitfalls of the English language, leaned over and whispered to the astonished lecturer that he wished him to change the subject of the talk, and to select a non-religious one. This was rather short notice, but the accommodating man of eloquence nodded his consent, and devoted the few remaining minutes to a hasty assemblage in his mind of the points of his old lecture on Napoleon.

When the youth with the alleged tenor voice had finished singing, the worthy priest arose and addressed the audience as follows, in a rich Luxembourg accent: "Ladies and gentlemen: I have observed that our Broderant friends are here in gred numbers—which is one act of courtesy which should be met by another, yes. Our distinguished friend who is to address you was to have spoken on a moral and religious question which might have offended some of you. But, ladies and gentlemen, I take pleasure to tell you that I have asked him to chancie the subject, and he has kindly consented to bick out some perfectly immoral subject." The blushing speaker then arose and announced—"Napoleon."

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Oh, Pshaw!

SECRETARY OF THE TREASURY SHAW does not know that he was mistaken for a pickpocket and that he was in grave danger of being arrested at the Auditorium Hotel yesterday afternoon. The Secretary had just returned from the West, and was seated near the cigar stand talking to a friend, when a stranger walked up and sat down near the two men. The secretary has a habit of fingering the watch chain of the man to whom he is talking, and he was engaged in that occupation when the stranger caught sight of him.

"There is absolutely no danger if you will keep up your courage," the secretary was saying.

"Bunco man," muttered the stranger, and his eyes did not leave the fingers on the watch chain.

"You see, it will be a lack of confidence that will precipitate a panic."

The stranger was straining every faculty to catch the remarks and all the while he was watching the fingers on the watch chain.

"There is no danger, whatever, absolutely none," the secretary continued.

"Shooting the hot air, for sure," commented the stranger, but he still watched the fingers on the chain.

"As I remarked at the traveling men's banquet the other evening—"

"Shooting pretty high," muttered the watcher.

"Things were never as prosperous."

"Shame to let him take that man's watch. I'll get an officer," and the stranger arose. He walked to the cigar counter. "See that fellow trying to lift that chain? You keep an eye on him while I get Pepetto, the detective," said the man to the girl behind the counter.

"Why, that's Mr. Shaw, Secretary of the United States Treasury," she explained. Then she wondered why the man beat such a hasty retreat.—[Chicago Chronicle.]

Given Best Seats at Circus.

D. R. E. A. DUNCAN of this city, who was Gen. Sherman's staff surgeon, related an incident of the noted warrior which occurred in Washington after the close of the war. "One day," said Dr. Duncan, "I received a note by messenger from Gen. Sherman stating that there was a circus in town, and that he had promised to take 'Cumps'—his son—and some of the youngsters' raw recruits' to see the circus. He asked me to come up to his house in the afternoon and help him out.

"I did as requested, and there found the general, with

young Tecumseh and a horde of little fellows, over whom the general's son was absolute monarch. We proceeded to the circus, and there was a terrible jam. The general counted noses and bought the tickets, and we made a charge on the entrance. The general caught a big usher by the coat and said:

"See here, I'm Gen. Sherman, and I've got a bunch of raw recruits, and I want you to find us some good seats."

"The usher looked at the general a moment and then said: 'You are Gen. Sherman, are you? Well, sir, I've never seen you before, but by — I've run from you more than once. I was in the rebel army. But I'll find you some seats, all right, and they'll be the best I can get, too.'"

"The fellow was as good as his word, and we all went in and had one of the greatest times going."—[Washington Star.]

To Carry Him Away.

WALTER DAMROSCH, the musician, delights to talk music, but only with those who have a technical musical education. He has no sympathy with the amateurs who do not understand the technique of color harmonies and of brush work. Not long ago at a dinner party in New York, a voluble man bored Mr. Damrosch with a long harangue on music. This man said "Home, Sweet Home" would live longer than the bird music of "Siegfried," and that "After the Ball" had more depth than the melancholy Mark motive of "Tristan and Isolde."

Finally the man turned his attention to the sentimental song, "Once I Was Pure as Thou," which has of late grown popular in certain humble classes of society.

"Once I was Pure as Thou!" he exclaimed, almost smacking his lips. "Ah, that's a song! Whenever I hear that song, it—carries me away."

"Won't some one sing 'Once I was Pure as Thou?'" said Mr. Damrosch, looking anxiously up and down the table.

Like the Dog's.

MRS. FREDERICK B. SCHOFF, the president of the National Congress of Mothers, dwelt forcibly in a recent address upon the evil of loquacity.

"Loquacity—talking overmuch"—she said, "that is a fault inherent in too many mothers, and in too many fathers, too, if you came to that. Silence is a blessed thing, and we should cultivate it when we have nothing to say. Silence is always better, to my mind, than a buzz of empty and meaningless talk. I used to know an old lady who talked overmuch. She was out walking one August afternoon when a man passed her with a dog. The dog's tongue hung out a little, and the old lady stopped and said: 'That dog is not safe. It should not be at large. Its tongue hanging out of its mouth is a sure sign of rabies.'"

"The old man, who knew the meddlesome old lady well, retorted: 'It's only a sign that the dog's tongue is too big for its mouth, the same as some old folks.'"

Object Lesson Failed.

JOHN SPENCER BASSETT, who has been forced to resign his chair at Trinity College, N. C., because he said that Booker Washington was the greatest man the South had produced since Lee, is a foe to bigotry and to all liberal and narrow views. In a recent lecture Mr. Bassett scored religious intolerance. He began in this way:

"I was born in Tarboro, and in Tarboro, in my boyhood, I went to church every Sunday. I shall never forget an object lesson that a clergyman impressed on me there. The clergyman arose one Sunday evening in the fall with a fresh green walnut in his hand. He held the walnut up so that we could all see it, and he said:

"'Dearly beloved, with this walnut I am going to give you an object lesson. See me now remove the nut's rind. This rind is soft, dirty, useless, profitless. It is like the — church. Now I come to the shell. It is a hard, strong shell, a difficult thing to crack; but there is no taste to it, there is no nourishment in it; it is valueless, a thing to be thrown away. This shell, my friends, is like the — church. And, finally, breaking the shell, we come to the kernel, which is like our own church. —'

"At this point the clergyman took out the kernel, and found it rotten. He reddened, coughed, and pronounced the benediction, and I understand that he was, after that day, liberal in all his views."

They Were Boys Together.

HE had made his "pile," and was on his way to Europe to enjoy life, and incidentally he was affording amusement to the smoking-room coterie on the big liner. His acquaintance with celebrities seemed to have included pretty much everybody worth knowing in this or any period of history, but for some time his interested fellow passengers, while they did think that he drew a rather long bow, failed to detect any bit of bluff so glaring as to show the arrant humbug up. He appeared to be rather a young man to have lunched with "my friend Abraham Lincoln," and to have received a pressing invitation from the Czar and the Prince of Wales at the very time that he was on his way to renew an old friendship with the Pope and Kipling did seem almost too much glory for one rather raw gentleman from Kansas. But it was not until the quiet man who always sat in the corner took him in hand that the gentleman who knew everybody came a bad cropper.

Waiting until a full smoking-room should assemble to witness his coup, the quiet man drew his victim out by casually remarking: "It is a rare treat, sir, to meet a gentleman like yourself who has met so many great men. I wonder, now, if in your most unexampled career you ever chanced to meet the great novelist, George Eliot?"

"Well, rather," exclaimed the unsuspecting one; "Did I ever meet George, eh? Why, my dear sir, George roomed with me at college."

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"Dabney has an awful attack of indigestion."

"How did he get it?"

"He tried to eat up all the warmed-over turkey at once, so it wouldn't come on the table again."—[Cleveland Plain Dealer.]

The House Beautiful—Its Flower Garden and Grounds.

CUT FLOWERS FOR MARKET.

SOME OF THE COMMERCIAL ASPECTS OF FLORICULTURE.

By Belle Sumner Angier.

NOTE.—Queries, properly and clearly stated, addressed to the House Beautiful department in care of The Times, and which relate to floriculture or landscape gardening, architecture or interior decoration, will be answered, so far as possible, either in these columns or by personal letter. Answers will have frequently to be deferred for a week or more.

On Historic Ground.

It was the last of November, the hills were parched and brown. A fine dust was in the air, and the skies seemed almost merciless in their steely blue and the red, red glow of the unceasing sunshine. I took my camera and went to Old Town (a suburb of San Diego.) A half dozen tourists straggled about with me and looked at the broken tile roofs, and crushed adobe walls, of the remnant of historic homes that mark the site of the oldest town in the State.

I pictured to my mind those days when the courtyards



PALMS AT OLD TOWN.

Planted in 1769 by Junipero Serra.

were filled with bloom, when the dark-eyed senoritas sat under the shelter of the vine and the tree, and Old Town was young and bright, and beautiful—but the stretch of my imagination was wearying! Saucy little lizards ran about over the walls and impudently came very near to investigate me—and I don't like lizards! Over under the famous old fort-crowned hill, I caught a glimpse of something green and fresh-looking, almost under the shelter of the aged Palms that make the theme for so much of the romance that centers here. I plodded wearily down the dusty road.

How nice the little cottage near the Palms looked. It was not painfully new, but it was new, and clean, and fresh, and the garden was fenced, and there was wonderful asparagus plumosus veiling the porch, and the odor of carnations in the air. By the gate a tiny sign read: "Cut Flowers."

Modern Enterprise Amid Ruins.

"Yes, Mrs. Hinton is at home." A moment of explanation, and I was in the lovely cool parlor hearing the story of how Mrs. Hinton came to be growing cut flowers for the market. My hostess had all the charm in feature and manner of the Spanish ancestry of the one side of the house. Her ability and sturdy, patient industry may have come from a long line of good English blood. Born in Old Town, she and her husband, J. B. Hinton, are now nearing middle age. Both remember Old Town when it was at its best. Many changes have come about, and not least of these the shrinking, shrinking of values in all property, until once valuable holdings brought insufficient income. "It seemed as if we must do something. I made 'home-made jellies' and canned fruits, and still do so, but there is so very little profit when they are put up right, and so I began cultivating a few flowers and selling to the florists down in San Diego. Just a few roses and carnations at first, then asparagus or fern. My little

plot wouldn't grow enough after a little, and so my husband consented to my encroaching upon one of the chicken yards with my carnations. The chickens were banished and the carnations proved so profitable that my husband was interested and began to assist me in caring for them. Gradually I spread out into all the chicken yards, and down into the 'back lots,' and then into the field, and even into the barnyard until my husband said I really would have to draw a line somewhere.

"Oh, no, we do not make a great deal of money, but there is plenty, and we like the work among the flowers. It is better than being idle, and there is always a market for good flowers.

"We sell at wholesale, of course, practically all to one dealer. No, I had no special training, only flowers always did grow well for me. I have only about three thousand carnation plants. A kangaroo rat did much mischief this summer. We trapped in vain, but finally the cat got him. A cat is really absolutely necessary in every carnation garden. My best white carnation is the Los Angeles, while I have both a red and white Redondo. Dr. Choate is a handsome red, and the Empress is a dark red that is popular.

"My centaureas bloom at all seasons, and I have raised much very fine seed from them. You will see, too, that my Asparagus Plumosus has seeded heavily and will be of course much more profitable than if I had cut it. The seed is valued by the thousand, and in Los Angeles now is worth \$7.50 a thousand seeds. My African marigolds, white snapdragon, pink asters and lavender candytuft have all done their part. There is some market for the daffodils, but I found violets were not profitable for us to grow because of the labor in picking.

"If we were younger—but then, as my husband says, 'if anyone thinks he can raise flowers and sit down all the time, he will get fooled!' We shall not try to plant more than we can handle comfortably and take good care of, without employing outside help. We have orders we cannot fill, but if we took more space and hired the labor it would be neither so profitable nor so pleasant, we think." Carnation Culture for Amateurs.

A little later in the season there will be published in this department an exhaustive article on "Carnation Culture," gathered from some of the best authorities on the subject in this country, but because some of my friends among the amateurs are getting anxious for information I will give them here just a few hints about propagating. In the first place your best way to get a start is to buy from dealers the best varieties, they have, buying small potted plants, but since this entails expense some will like to know that



RESIDENCE OF J. B. HINTON.

not fifty per cent. of cuttings taken from a plant over one year old will "strike" or grow. Your cuttings need not be over three inches or even less, and are taken from "side shoots," but they must come from young, sturdy plants. Strike them in sand. Ordinary beach sand will do, where the salt has been washed from it. The best carnations are grown near the sea, and they must have a sandy loam although they appreciate good nourishing food, and this may be given by applying hen or cow manure that has stood a year or more. They must be well rooted, and artificial manures are worse than nothing for carnations. A dealer has estimated for me that it costs \$300 to plant properly one acre of standard carnations, but he also tells me that with ordinary success and at wholesale rates one should net \$1000 the first season. Carnations must have good water and plenty of it, but a twice-a-week thorough irrigation is better than more frequent watering. March and April are the best months for field planting along the coast. Inland probably six weeks later.

Star Petunias for All the Year Round Show.

Out at Pasadena the other day I was delighted with the brilliancy of the Star Petunias at the Raymond. It seems that Mr. Walter Raymond, while in attendance on the horticultural exhibit in Boston last year became interested in a very fine exhibit of these Star Petunias, and so secured a great quantity for the California gardener to try. A little experimenting proved them to be "all-the-year-around" bloomers, and very showy under our brilliant sunshine. They have a pleasant perfume, and a certain delicacy that pleases the eye, but are a little viscid or "sticky." This will however, be a recommendation to people who wish to plant large grounds that may not be patrolled by the police, for sad to relate, there are a great many people in this world ("real nice-looking people, too") who cannot fully enjoy a flower until they have removed it from the parent stalk and have it in their own hands. It is too bad that this is so, for especially here in California where hundreds of people pass in their "touring" through our private grounds, the best garden possible could not supply blossoms for these ruthless pleasure-seekers. Ergo—do not plant your choicest where it may be reached over the fence, but

plant it where it may be safe, and do not be afraid to do so, but the ninety-nine other people who will not need to be told "Keep off the Grass!"

"Mrs. A. K. writes to ask for a list of plants for growing for cut flowers. She wishes to have them into consideration, as 'but few seeds' are an amateur gardener because of their expense.

My dear lady, I will give you the list, which have been given in this department from time to time when it comes to figuring on the plants. I haven't the least idea which seed they will be just like me to plant a few seeds for you. I will advise about the flowers, and perhaps of the agricultural and horticultural department. The Times will give you some advice (if you are not these mischievous and unprincipled people). Hardy perennials are those that usually last till the second year after sowing, but may produce larger clumps of flowers year by year. Should in this climate usually be in fall.

Some of our best border plants belong to the tinlinums—the Majus and dwarf varieties—and flower the first year. You may have 'dragons.' Perennial asters are useful, but useful to combine with violets or other quiet. The "Snowball" is a most useful plant in this climate, and is the only snowball you can get. There are red, and rose, and other colors. Daisies," you may call for.

Canterbury Bells are excellent when spared. I am especially fond of the blue blues are hard to get in this class of plants, mums, and coreopsis, and all the daisies, too, do well in Southern California. Especially the English stock, are magnificent and can be made very useful. Calliopsis here as cut flowers, Phlox is popular. Many are available in this list; Stevia is good for decorative work. There are many stocks that one florist makes a specialty of, while I am much interested in the old-fashioned Wall Flower which makes a bloom that is so far superior to any same.

C. S. M. writes about the difference between Foster and Nephrolepis Pierisii, both of which are sports of the Boston. My cousin, "Mr. Pieris of Tarrytown, N. Y., says of it was found among a lot of Boston ferns, and is a sport from that variety," although it is with us the Pierisii very frequently found and some that partook of each by having the same frond, part Boston, and part Pierisii. Instances a young Pierisii reverted to the Boston." C. S. M. says further: "The fronds are quite heavy and droop from the so much that I think its place is in the garden and that it will never entirely replace the ordinary pot plants."

C. S. M. and others may be interested in the Anna Foster also has this tendency to my opinion is so little to be distinguished from that I found the Boston preferable, which is not seem very clear unless one recalls the likeness of the Boston and its clean, clear color.

PLANTING TIPS.

Along the coast all annual and perennial for early spring blooming should be in the localities where rain has fallen, deciduous trees and roses of all sorts may be planted.

RAISING BABIES.

Hospital methods are adopted more for private treatment of babies—the method of the superior modern hospital, conducted under medical supervision. The cradle is a rocking memory. The child lies upon it not picked up and carried about the house. Visitors and relatives are no longer pound it in the ribs, pinch its chin, or to its lips. The strictness is laughed at by others and resented by relics of the old time. Every other fossil, is attributed to justice, but without much relevancy. Intelligent treatment of infancy is doing more for our children, to protect them from needless exactions, and to make Babyhood, indeed, is the best condition. When the child grows older it meets the substitution of nurse's for mother's care, encouraged by the new activities of woman. At the beginning, however, in the first of his existence, when change and development rapid than at any other period, he never had such decent treatment as to be left to beslow upon him now. He is a welfare instead of for the amusement. [Collier's Weekly.

Hand-painting is seen upon many of the models, not only in chiffon, but also in velvet, and one Broadway firm is showing of pearl gray crepe, simply made, but with sleeves with delicately pointed pink and green, and butterflies embroidered. —[New York Sun.

A Suburb

COMFORTABLE MODERN

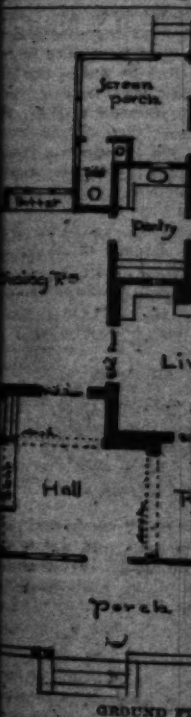
By a Los Ang

the growth of the artistic community during the past few years which renders the problem which confronts the architect in this article is concerned with the development of a modern house, and a brief description of the architectural Department.



A SUBURBAN

designing a residence. The architect should be the keynote of the convenience. Of course their number will be small. Being in the climate of Southern California, drawings will afford a more complete view of the house, as well as open porch, and the long



the happy union of style and substance has an east and west. The principal one, however, is the house, and the porch leads onto the main floor, which is about nine by twenty feet. The open porch, or veranda, is a good protection from the sun. The house is generally adopted for its comforts better than the house through the main floor, one passes through a high back door into the reception room, which is a plastered arch. The first rooms enter the main floor. These rooms, with light tinted walls, are the desired color of the second floor. The main staircase is a house—by a rear stairway into the living-room and the

Mane Eighteen Feet Long.

CALIFORNIA HORSE WITH AN UNRIVALED HIRSUTE APPENDAGE.

By a Special Contributor.

AMONG the world's 80,000,000 horses there is only one that has a mane eighteen feet long, and that one is owned by George O. Zillgitt of Inglewood, Cal.

Though it seems beyond the bounds of possibility that a horse could have such a growth of hair, the accompanying photograph gives proof of the fact, and if that evidence is not sufficient, a visit to the home of Mr. Zillgitt and a glimpse at the wonderful horse and its still more wonderful mane will thoroughly convince the most skeptical.

Sells Bros., the well-known circus managers, have repeatedly offered exorbitant sums for the horse, which they are anxious to obtain for exhibition purposes, but just as repeatedly has Mr. Zillgitt refused to part with his pet.

That Mr. Zillgitt's horse is the champion mane producer of the world is an unquestionable fact. A horse with a mane eighteen feet long has never been recorded in equine history. Marvelously beautiful are the long gray waves of hair as they are released from the braids which are necessary to keep the hair from getting into inextricable tangles. Mr. Zillgitt always keeps the mane braided and bound in a net, except on special occasions. The mass of hair is so heavy that the upper part of the braid

whizzing automobiles, electric cars and steam cars, just as she ignores butterflies and humming birds. Mr. Zillgitt says no one has been able to account for the growth of her extraordinary mane, and it is generally conceded to be simply a "freak of nature." HELEN LUKENS JONES.

The Little Papoose.*

IT HAS NO STOCKING TO HANG UP FOR SANTA CLAUS TO FILL.

By a Special Contributor.

THE cutest thing of human kind is the papoose. Do not think that because it is the child of an Indian squaw the papoose is born to a life of neglect. Instead, as long as the Indian babe stays strapped to its board, its redskin mother is its constant and loving companion.

Its first Christmas, although the Indians have taken on most of the holiday customs of the whites, the papoose has no stocking hung up. Beside the baby redskin are placed its presents. Perhaps it will receive a bright necktie, a fancy cap or a striped stick of candy (Indians are fond of color); but its gifts are more apt to be a string of shells, an elk tooth or the claw of a bear.

The infant of bronze wears no stockings because it does not need them. The board on which it is strapped has fastened to it comforting flaps of skin to "wrap the baby up in." And this board serves the purpose of many ac-

hearted volunteer colonel from the west, said: "Boys, we've got to take care of the child. Right now, she shall be my daughter. I'll take her back to the board."

The Indian mother never whines as is the custom among us children for a reason for licking a "kid" because the redskin youngster yells, its mother never wants it to quit. She does not want to weaken its mind, anything in war. They say, you never cry. Now when anybody comes back to him that the Indian baby is the disease is not so prevalent as it once was. It does exist in individual cases in the past, but it has a being. One day I was looking at a circus parade in a Western town. Their five papooses around to the horse. The horrs commenced to bray, and I passed the squares, and five Indian

The papoose, too, like the pole-lis, has a maternal comparison. I met an Indian I knew. She had become a mother. "Ruth, how is your baby?"

"Heap good," was her reply. "The sie's papoose. Rosie's papoose got two teeth."

Ruth was a Catholic girl, having gone to school. The Sisters gave her a name. She named her papoose after the late bright silk necktie, and she at once thought of Leo. Do not think that the Indian love her babe.

A boy every time! That's what the father want the papoose to be. The mother does not want her baby to be a drudgery which a squaw must have. If he is only the father of the

The papoose never gets a name until it leaves the board. If it is a boy, "hoh-wol," which means boy; if it is a girl, "pe-to-lis." They are then named after the streets of Cairo, "waied," and the girl is simply "kid." When hoh-wol or pe-to-lis is put out in the world, he will watch. If the child is attached to a strange thing, or something unusual, he will watch. So it is easy to see how such a name as Whirlwind, No-Shirt, Lazy Dog, or a pe-to-lis could come. The most noted papooses in the world are twins—Tox-e-lox and A-ham-pa-live, and now are six years old.

Among savage tribes a great many sometimes threatening starvation of her to let her babe be killed. From the evil spirits is the cause of the twins. Twins, being uncommon, are thought of the devil; and it is the custom of the tribe to put them to death. So after that the balance the lives of Tox-e-lox and A-ham-pa-live.

When Chief No-Shirt, who rules the tribe, that twins had come to him—ye-an-ho-mox, squaw of Ho-hoh-mox-mox (Yellow Bear) creed that they should be put to death. Bear, who loved his two girl papooses, Chief No-Shirt and asked that he call the whole tribe might decide.

At the powwow the father of the twins, why the Cayuses should break their twins live. Yellow Grizzly Bear made the tribe he recalled a legend which to the history.

He said that long time ago, when the high, contrary to the custom of the Cayuses, the children of Chief Cougar-Shirt, to live. They grew up to be beautiful. One day two Bannock warriors (braves) came. The chief took them into his love with the twins. They planned to

After a few days Chief Cougar-Shirt made it pleasant for their Bannock for a hunt. The chief had given the best ponies. When they all had gone, the Bannocks quit the hunting party and the tepee of Cougar-Shirt. The young Cayuses the Bannocks make eyes at the wife of Cougar-Shirt, knew what the two Bannocks and began to chase them. It was the swifter ponies of the Bannocks where the twins were, ahead of the Cayuses then mounted their own ponies, and two maidens behind them and made a try down on the Snake River. The Bannocks but never caught the Bannocks.

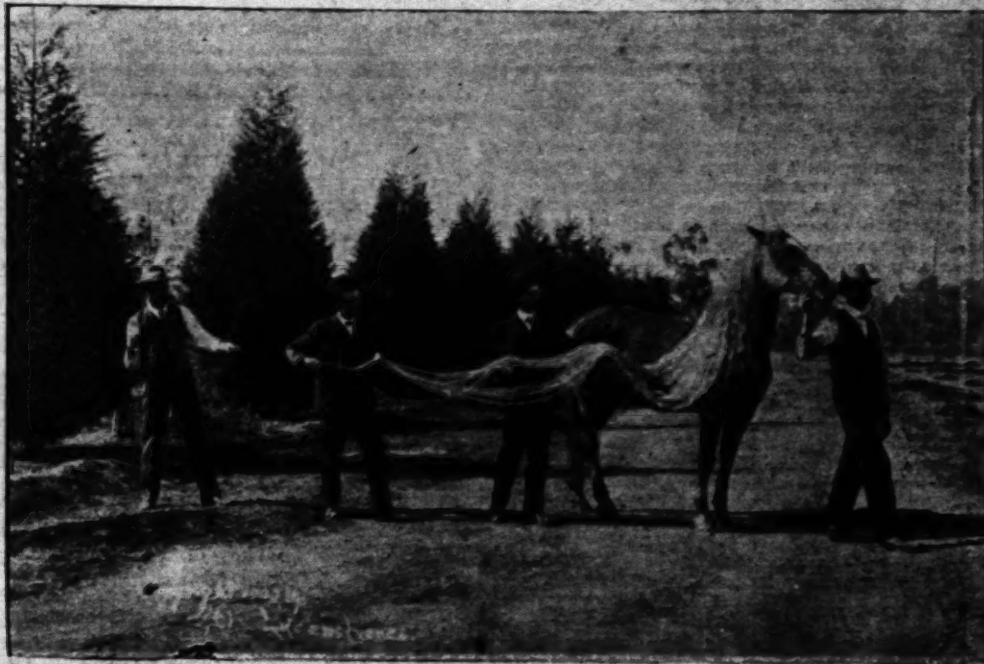
Cougar-Shirt declared war against the Bannocks. He went to see near-by tribes, the Umatillas, both of whom agreed to join the two peoples could send their warriors.

The Bannocks had come against the Cayuses. "I know you say now, kill my two girls," said Cougar-Shirt. But he went on to say that (and Indians have great faith in the papooses were to break the evil charm) ago had cast over the tribe. In the Bear said his twin girl papooses were squares, the most beautiful of them wad the son of the Umatillas marry the heir to the Umatillas through the double wedding united. They the Bannocks, their foe for so long.

At the end of the speech of Yellow Bear was taken. Not one present at the twins should die.

So many whites even in the North interest the growing up of Tox-e-lox and A-ham-pa-live.

(Copyright, 1911, by Charles W. Jones.)



THE HORSE WITH THE MARVELOUS MANE.

measures six inches in diameter. It requires an hour and a half to unbraided the great length, and as long to braid it again, for the greatest care must be exercised lest the strands become twisted, and if they do, it takes a long patient struggle to untangle them.

The possessor of these locks—locks that would send a hair-restorer firm into eternal ecstasies—is a magnificent animal of the chestnut dapple kind, and seems to enjoy having her hair combed and arranged quite as much as any girl would. Maud, as the animal is called, is now ten years old, weighs 1200 pounds, and is fifteen and one-half hands high. She was purchased by Mr. Zillgitt when she was three years old. At that time there was nothing about her to distinguish her especially from ordinary horses, and it was not until a year later that the mane showed unusual inclination to grow. When she was six years old her mane was eight feet long, and it has been growing ever since. Once it was kept in a net for ten months, and when at the end of that time it was taken down it was measured, and found to be two feet longer than when it was put up.

Until a month ago Maud was kept on the Zillgitt farm in Fairmont, North Dakota, and was frequently subjected to hard farm work, just as the other horses were. Unfortunately the heavy plow collar rubbed against the mane and injured it somewhat, yet enough of it remains to make a magnificent showing.

When Mr. Zillgitt came to California a month ago, he brought the wonderful horse with him. She stood the 2800-mile journey in a freight car with remarkable fortitude, but when she finally landed on California soil, she was so delighted with the climate, the flowers, the birds and the delightful freedom from long imprisonment that she kicked up her heels and pranced about like a monkey escaped from the zoo, and all this in the face of the fact that she left a young colt in the East. This colt, which was left with Mr. Zillgitt's brother on the farm at Fairmont, gives promise of being a more remarkable animal than its mother, for both mane and tail have already reached the ground, and are growing rapidly. They have to be braided and bound up tight, or the frisky animal would grind them out in the dirt with her hoofs.

Maud, the mother of this precocious colt, after she recovered from the first ecstasies of California life, became dignified and docile, and now makes a gentle family horse for the women to drive. Mr. Zillgitt declares that she shall never do any more hard work, and that she shall live like a queen. She is handsome and has a proud bearing. Although she has lived most of her life on a country farm, she has no fear, and simply ignores the

cessories of infancy. It acts as the cradle. The squaw mother, instead of rocking the cradle, takes baby, board and all, swings him in her arms, and, humming an Indian ditty, puts him to sleep and sets him upright against a tepee pole to snooze. The board is the papoose's go-cart. It has no wheels; so the mother straps it onto her back and gives the baby an airing. If she rides a pony, onto the saddle she ties the board and jogs along—the papoose dangling at the side of the beast and looking like a little live mummy.

This board is a creation of necessity. The Indian, following his will, is nomad. Being on the go so much forces him to put up his things in convenient packages. A baby buggy would be in the way. At best it would soon get broken. The Indian mother could not carry her babe in the same way that the white mother does, and make a day's journey. So the most convenient package to make of the papoose is to tie him on a board; and the Indian mother carries her papoose about no more bothered by it than a grand dame is by her shopping bag.

In making this peculiar article of the Indian household, the prospective mother spends much time and care. Girls make their baby board even before they marry. The father in making his daughter's marriage settlement oftentimes puts in her board as one of the things to counterbalance the goods brought forward by the groom. The squaw shapes the board and then covers it generally with buckskin. Onto this she works beads of many colors and makes of them designs of leaves, flowers or animals. She always adds on flaps with a head cover; these flaps are to strap the baby into—the board, we may say, is the sole of a shoe; the flaps, the upper. The straps of a fine papoose board are oftentimes made of leather thongs strung with large, flat beads or shells. Sometimes, however, the "board" is simple in make, being merely a few bent sticks. But it is a mark of gentility or distinction for the squaw mother to put her papoose into the flaps of a richly ornamented board.

In time of war the Indian mother takes the papoose along. The mother herself renders great aid even in battle. She takes care of the ponies while the braves make an attack. All the while the papoose is slung on her back. After the battle of Wounded Knee, in Dakota, in 1892, there was found upon its mother's cold, stiff body a young girl papoose. The mother had been shot through the heart. The babe lay exposed to the cold all night, but the skin wrapping had kept it from freezing. Finding the little papoose strapped upon its dead mother, a big-

*See illustration on page 17.

Children Who Have No Christmas Stockings.

INDIAN BABY
NEVER CRIES



SOLID COMFORT

TAKING AN OUTING



BEFORE AND
AFTER DINNER



PUTA AND
PAPOOSE LEO



A HAPPY INFANT



colonel from Nebraska, who says, "we've killed the mother of the child. By the gods, I'll be my daughter." So the colonel rode back to the railway station and never whips her papoose. Of course, among us civilized (?) whites, a "kid" is because he cries. But the Indian baby does something else. It does not whine. It does not weaken its spirit, courage being a thing which anybody tells you the Indian baby does something else. It is so prevalent as among white children in such an enormous number of individual cases in such an enormous number of cases. One day I saw a group of Indian babies in a Western town. They were around to see the glided and danced to bray just as the horses and five Indian babies began to cry, like the pale-face kid, in a town. I met an Indian girl once who came a mother. I said to her, "What's her name?" "He born name," she replied. "He born name is Papoose. He's papoose got no tooth. He's a public girl, having gone to the school. She gave her a Christian name. She was after the late Pope. I gave her the name of St. Peter. And she at once tied it around her neck. I think that the Indian mother does that. That's what both Indian mothers do. Then he can't cry. He does not want her child. The squaw must bear, and she is the father of squaws. She never gets a name until after the birth of a boy. If it is a boy, he is called means boy; if it is a girl, she is called means girl. They are thus designated. In the city of Cairo, where the Indian girl is simply "bint." For a long time, the hats-wol or po-to-fu were worn in the woods or on a hill. A child is attracted by some something unusual happens. It is easy to see how a hat-wol or Whirlwind, No-Shirt, Rain, etc., could come by being in the Hill or Eat-No-Meat. Papooses in the Northwest are called Tox-e-lox and A-lum-pum. They are six years old. They describe a great many infants who are starving of the mother. They are killed. More often, they are the cause of the death of the mother. They are uncommon, are thought to be the custom of most tribes. So after their birth, they are called Tox-e-lox and A-lum-pum. Tox-e-lox, who rules the Cayuse, is called Him-ye-an-hi-hi (White). Tox-e-lox (Yellow Grizzly Bear) could be put to death. Yellow Grizzly Bear's two girl papooses very much liked that he call a grand. The tribe might decide the cause. The father of the twins was asked to break their tribal law. The Grizzly Bear made a speech to the legend which to the Indian people. A long time ago when the band of the custom of the Cayuse tribe, the children of Chief Cougar Shirt, were up to be beautiful young warriors. The Bannocks (braves) came to take them into his tepee. They planned to steal the children of Chief Cougar Shirt and to use them for their Bannock guests. The chief had given them to the Cayuses. They all had gone several days on a hunting party and started on a hunt. The young Cayuse, who were the eyes at the winsome, were new what the two Bannocks were. It was a wild night. The Bannocks bore them away, ahead of their parents. They took their own fresh, swift path and made way for the Snake River. The young Cayuse were the Bannocks. They declared war against the Cayuse and the Snake River tribes, the Wallula and the Umatilla. They agreed to join him. He would send their warriors to fight against the Cayuses and the Snake River. He would now, kill my two papooses. He went on to say that he had a great faith in dreams. He would break the evil charm that was on the tribe. In his dream, he saw that the girl papooses grew beautiful of their tribe. He saw that the Wallula chief was on the Umatilla throne. They were united. They all made their foe for so long, and they were the speech of Yellow Grizzly Bear present at the power.

By a Special Contributor.

But, scoff as he would, Stacy was fast in the coils of Don Cupid. A glimpse of the Dona Ysabel in the family carriage with her mother set at naught all ascetic resolution, and the slight blush which flamed for a moment on her

"I heard Don Enrique tell my father," she began nervously, as Stacy did not speak, "and so I came, because—"

Los Angeles, Cal.

...ary way, but by
... just fitting within A

New Christmas Tricks.

A MAGICIAN EXPLAINS THEM FOR READERS OF THE TIMES.

By Prof. Hojmann.

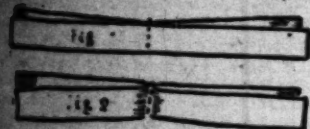
The following is a new and improved version of a very old trick. It can be safely recommended to the aspirant magician, as enabling him to produce a really surprising effect with a very small amount of dexterity, and with the simplest possible appliances. These in fact consist of a couple of four-foot lengths of ordinary ribbon, about five-eighths of an inch wide, and of a short piece, say six or eight inches, of some bright-colored ribbon.

It may be as well in the first instance to describe the effect to the spectators, leaving the "how it is done" to be explained afterwards.

The performer comes forward, holding the two pieces of ribbon in one hand by the center, with the ends hanging down on each side. He lays them, thus doubled, on the table, and asks the loan of a gentleman's watch. The dejected-looking fellow having been procured, he remarks that he has a glance at it is a valuable watch, and you may be sure that what may happen to a watch when once you have it in your hands. He therefore invites the owner to place it in the experiment, so as to keep an eye on it. On coming forward, the gentleman, being or not as the case may be, is placed in a standing position, facing the company. The performer gets the watch from him, and then draws along the two tapes of the watch, which he then draws along the two tapes of the watch. "Now, sir," he says, "I don't want you to lose your watch, even for a moment. If you do, we will tie it by these two tapes to your waistcoat." He then takes the watch against the assistant's shirt front, a few inches below the chin. "Now, sir, please pass one of these tapes under your vest, and out at the left arm-hole. Now, sir, in the same way, out at the right arm-hole. Now, sir, draw these two ends together" (he indicates the end of the tapes, and the one belonging to the other tape, and now hanging down in the middle of the assistant's chest). "And now the other two ends in the same manner, so that the tapes shall be crossed, with the watch in the middle. Now you may be pretty sure that I will take your watch away without your knowing it, but I will tie it to the tapes with this bit of ribbon." He does so accordingly, the ribbon being drawn through the ring of the watch and tied in a bow at the tapes, so that the watch and ribbon are left hanging like a decoration, on the gentleman's breast. The performer then addresses the company to something like the following effect:

"Ladies and gentlemen, with all those knots the watch ought to be pretty secure. But we were taught at school that two negatives make an affirmative; or, in other words, that two knots are not a knot at all. Now there are two knots on the tapes" (he points to them), "and if each of these knots is not a knot at all, the only knot that really remains is the knot on the ribbon. If not, why not? But I will put the matter to the test. I untie that last knot" (he unties one end of the bow), "and you see it is just as before. The other two knots are not knots; at any rate, they are well not be there, for the watch is free." He accordingly, loose in his hand, though the tapes are still before, and have to be untied before they can be removed from the waistcoat.

The secret lies in a little preliminary preparation of the tapes. Their center portions are laid one upon the other, and fastened together by means of a very small pin, corresponding in length with the width of the tapes. (See Fig. 1.) The pin is too long the point may be nipped off with the scissors. The two tapes are then opened out at



when their centers will be as shown in Fig. 2. The condition that they are brought on by the performer, being concealed by the hand which holds the watch, instead of being, as the spectators suppose, threaded on two continuous tapes, is actually over the two halves of one of them, and brought to the point of junction.

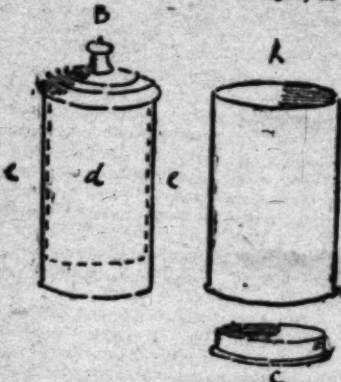
The owner of the watch must not be allowed to see the "faked" condition of the tapes, but this is easily done by the performer, the critical point being easily hidden by the thumb. When the watch hangs on his chest, too much under his chin for him to be able to get a clear view of it.

The ribbon has a double purpose; to enable the performer secretly to withdraw the pin, and to support the watch after it is withdrawn. His course of proceeding is: He first threads the ribbon through the ring of the watch; then passes its ends through the loop formed by the tapes on each side, and lastly, ties them together to the bow. This keeps all secure, and prevents the watch from coming away prematurely, as it otherwise would do if the pin is removed. The pin itself may with perfect safety be dropped on the ground, and this is indeed the way of disposing of it.

What may be called "pocket" tricks, if I were to name the piece of apparatus most useful to the magician, I should be inclined to give the place of honor to this little appliance, for there are few, if any, other pieces of apparatus which have so many different uses as can be found.

The apparatus consists of a cylindrical box of polished brass, about the size of a shilling, as in Fig. 3. It is not closed with a lid, but by the insertion of a plug B, which, when fitted within A, and in appearance solid, the spectator is able to judge, the apparatus con-

sists of these two portions only, and so far he is right, but neither portion is quite so simple as it looks. The bottom of A is not a fixture, though it fits so tightly as to defy any



ordinary examination. Its exact shape is as C. When this is removed A becomes a mere tube. The plug, B, is likewise in two portions, consisting of an inner plug d, and an outer sheath, or casing, e. This outer sheath is of the same length as A, but d is nearly half an inch shorter, leaving a space of that depth between itself and the bottom of e. It should be further mentioned that e fits tightly within A, but easily over d.

The apparatus is first shown in the condition depicted by A and B, C being duly inserted at the bottom of the latter. If B be then placed in A, and pushed right home, it will force out C (with anything which may be resting upon it) into the hands of the performer; the bottom of e, however, filling up the space C occupied, and so leaving the appearance of A unchanged. If the plug be then again withdrawn, d, being the looser fit, comes out alone, leaving e undisturbed, and revealing anything which may have been beforehand placed within it.

The following are examples of the many purposes for which the plug-box may be used.

1. Disappearance.—If a coin be placed in A, and the plug thrust home, the coin passes with the loose bottom into the hand of the performer, and the box is left empty.

2. Production.—A coin is secretly placed in e. The box is shown empty, after which the plug is inserted, and pushed home. When the plug is again withdrawn, the box is found to contain the coin.

3. Transformation.—A penny, say, is concealed in e, and a half-crown openly placed in A. When the box is closed, the penny appears in place of the half-crown, the latter having been apparently transmuted into the baser coin. A half crown may in like manner be changed into two shillings and sixpence, or a red counter into a white one.

4. Multiplication.—A single half crown or penny is placed in the box, two coins of like denomination having been previously concealed in e. When the box is again opened, the single coin is found transformed into two.

5. Secret changes.—Apart from the minor tricks openly performed by its aid, the plug-box is extremely useful as an auxiliary in the performance of more important tricks. It often happens, for instance, that the performer desires secretly to obtain possession of a marked coin, in order to place it in an orange, or in some other quarter to which it is intended to be ostensibly "passed." All he has to do in such a case is to place beforehand a similar coin in e, to receive the marked coin in the box, and push the plug home. The marked coin at once passes into his own hands, though by shaking the box it is proved (?) to be still therein. In due course the substitute (the same, as the spectators believe) is taken out, and ordered to "pass" to the spot at which the marked coin is to be found, the duplicate being got rid of by sleight of hand or otherwise, according to the capacity of the performer.

The following is a very effective trick, performed by the aid of the plug-box. A half crown or penny is wrapped in a small piece of paper, which is pressed down round the edges of the coin so as to take its impression. The coin is then taken out, and the paper refolded, when it will look as if still held the coin. The empty paper is placed in e, and pushed down to the bottom. The performer then borrows a similar coin, has it carefully marked, wraps it in paper just in the same way, and places it in A, which he forthwith closes with the plug. The wrapped-up coin passes into his hand. No sooner has it done so than he exclaims: "I have forgotten one thing, by the way; I ought to have asked you to mark the paper also. Here is a pencil, perhaps you will do so now." At the words "here is a pencil," he puts his hand in his pocket, and produces one, leaving in his pocket the coin and the loose bottom of the plug-box. He opens the box, and inverts it, but the paper does not drop out, being maintained by the pressure of its corners against the side of the box. "Never mind," he says, "the pencil will reach to the bottom; mark it just where it is." This is done, and the box again closed. The performer then announces that by his magic power he will cause the marked coin to leave the box, and pass into his own pocket. "Pass," he exclaims. "Now, sir, open the box. You will find the coin is gone." The usual reply is, "No, it isn't; for here is the paper." "Ah!" says the performer, "but I didn't say I should take the paper. I only said I should take the coin, and here it is." So saying he dips his hand into his pocket, and brings out the coin, leaving the paper in which it was wrapped behind. The marked paper is extracted from the plug-box, and found to be empty.

The above is of course but one of many possible ways of reproducing the coin, and the trick may be varied at pleasure. The plug-box can be had of any dealer in magical apparatus, at a cost of about four shillings and sixpence. There is a smaller size, which comes somewhat cheaper, but this is much less useful.

The Floating Disc.

This is a disc of white metal, the size of a shilling. The performer lowers it carefully on to the surface of a glass of water. It floats. He takes it out, dries it with his hand-

kerchief, and invites any other member of the company to try his or her skill. Any number may try, but they try in vain. The disc each time goes to the bottom, though in the hands of the performer it will sink or swim at pleasure.

The secret lies in the fact that there are in reality two



discs. The one is of tin, which, being heavier than water, naturally sinks. The other, though exactly like it in appearance, is of aluminum, and, if laid flat upon the surface of the water, will float. If dropped in edgeways, this too will go to the bottom.

The wiping of the disc after each trial enables the performer to exchange the one for the other under cover of the handkerchief. While the trials are being made, the disc not in use should be concealed in the right hand (see Fig. 4) lying against the middle joint of the second finger, when a very slight contraction of the finger will suffice to hold it securely.

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BEAUTY ADORNED.

It is said that more false hair is used in England than in any other country.

A well-known West End hair-dresser admitted to an Express representative on Saturday that this was probably the truth. "Our firm alone," he said, "furnishes 12,000 to 15,000 made-up 'transformations' to English women every year, besides enough loose hair to make 10,000 more. Since wigs have been obtainable on the hire-purchase system our trade has enormously increased."

"Therein lies the secret of the matinee hat. A woman arranges a 'transformation' to be worn with the hat in a way quite different from that worn without a hat, if she removed her hat she would have to redress her hair."

"Well-to-do women have a 'transformation' for every occasion, and this is sometimes rather sparse on top and fluffing out at the sides when worn with a hat. The evening coiffure is, of course, very elaborate."

"Where does the hair come from? A great deal is imported from Marseilles, from the East, Spain, and Italy, and especially from Naples and Sicily, and the amount generally reaches nearly forty tons a year."

"The chief French harvest is reaped in Brittany and Auvergne, where in some places the girls sell to the highest bidder; while the rest is supplied by rag-pickers out of the town dust heaps. All hair undergoes five processes before being made up."

"The lumps of hair are first washed, then carefully combed to separate them, next placed in bundles, and afterwards arranged in three lengths for wigs, plaits and curls, and finally sorted into seven different shades. They are then sold to the hair-dressers, who make them up and sell the false tresses at prices ranging from a few shillings to several pounds."

"Women are going bald in consequence. Eight out of every ten women show a marked thinness of hair round the nape of the neck and at the sides of the head. This is caused either by the strain of the pompadour roll or the frequent use of a 'transformation,' to wear which the natural hair has to be pulled flat and tight on to the scalp."—[London Express.]

MOBS OF WOMEN.

Recent events in several places have revealed a curiosity on the part of women and a resolution to gratify it that, as one may say, break the record. At the wedding of Miss Goelet to a scion of the British nobility a short time ago, New York was treated to a spectacle surpassing anything of the kind in its history. Women to the number of many thousands, well-dressed women, such as under ordinary circumstances would pass as well-bred women, crowded Broadway in a struggling mass eager to get a sight of the bride. They impeded travel, they fought for places of vantage, they did the most absurd things, dared dangers innumerable, baffled the power of the police to keep them within bounds, and many of them received severe injury. It was an amazing demonstration of the twentieth century woman's daring self-assertion. Almost worse was the affair in Newark, N. J., at the consecration of Bishop Lines. Here many were hurt and many more had their raiment badly rent in squeezing through the iron gates about the church. The police could not control their wild rush to get inside. The solemn religious nature of the occasion did not in the least affect their resolve to see the ceremony at any cost of dignity and peace. It was a free show, and they were bound to take it in.—[Boston Herald.]

NOW THE WOMAN WITH THE GREEN HAIR.

What is to happen next? A Bellevue patient has hair as green as grass. There is Clyde Fitch's "Girl with the Green Eyes," but a woman with green hair must be a veritable monster of jealousy or something. It cannot be becoming, unless her eyes match it in hue, and then, who knows but the beauty doctors will be bringing this new color into fashion? All the Bellevue physicians have been asked to examine these emerald tresses, but as they have no explanation to offer, we must accept the green hair as a freak of nature.—[Boston Herald.]

One of the Chicago bandits has changed his plea from guilty to not guilty. He desires the notoriety of a court trial. It means several more pictures in the newspapers.—[Des Moines Register.]

The Development of the Great Southwest.

OUR MATERIAL GROWTH.

WHAT IS BEING DONE IN THE FIELD OF PRODUCTION.

Compiled for The Times.

will be continued to receive and publish in this department, from time to time, articles, giving trustworthy information on the latest developments in Southern California, and adjacent territory, such articles to be confined to actual work in progress, or about to begin, excluding rumors and contemplated projects.

Milk Plant for Norwalk.

Norwalk Calif reports the transfer of the Star Creamery to John William Harvey Smith to the Bell-Vernon Company, C. H. Sessions, president; George E. Platt, manager. It is the plan of the company to make extensive improvements in the plant there, which will probably cost an expense of \$50,000. A much larger ice machine is to be put in; also a modern, up-to-date pasteurizing machine and other changes and improvements to give better results in handling the milk. It is not the purpose of the plant to make much butter there, beyond enough to supply the local demand, but to supply the Los Angeles market with milk and cream. When the new improvements are put in, the milk will be run through separators and then this being done to take out all impurities from the cream and milk will be run into the same pasteurizer, which will bring it to a boiling point in order to destroy germs; then it will be put in the cooling tank where it will be brought to a temperature low enough to prevent any fermentation, should any germs be in the process of pasteurizing. From the cooling tank the milk and cream will be taken for shipment. By this it can be put in the Los Angeles market in better condition than when taken fresh from the cows.

Water Supply.

The independent contributes the following on the water supply of that community: These large companies which provide the water used for irrigation purposes, are known as the Riverside Water Company, the Gage Canal System, and the Riverside Highland Water Company. These cover practically all of Riverside's water supply, comprising something like 22,000 acres of land. The first-named company is the oldest, it was organized in 1885, and now covers 1,000 acres. The moisture comes from Warm Springs on the north side of the valley, and also from wells located in the San Bernardino Valley. The water is pumped to pump water on a large scale, and is needed. When the season is on, the water is 2700 inches of continuous flow, running 300 to 400 acres of water-bearing land. The capacity can readily be doubled, although this company also has the extensive domestic water supply coming through iron pipes ten feet in diameter. The reservoir is specially designed to prevent loss from getting into the water. It has a flow of 150 inches and comes from sixty-five acres of land, and much more which can be added. The average pressure in the city is sixty pounds per inch, which gives excellent fire protection. It is doubtless due to this fact that the city has never yet had a conflagration of any size. The largest plant is that of the Gage Canal System, organized in 1886, and which supplies 8000 acres of water. It has about 1700 inches' continuous flow, and this can be increased if there is any need. It has fine arroyo lands in the San Bernardino Valley and in the Santa Ana River valley. The head have about 10,000 inches. The water is piped from the mains to the lands, and the highest corner of each ten-acre lot. The most economical mode of handling water, as there is a big saving of seepage. The Highland Water Company has a \$200,000 worth of reservoirs and pipe line from Lytle Lake. An additional \$100,000 is being expended now on the Santa Ana River. At present there are 100 acres, and the new arrangements will care for many more acres.

About the Tonio dam site is printed in the (Phoenix) Republican:

Returned yesterday from his trip to the Tonio and other places in that neighborhood. The entire trip on horseback, and says he enjoyed it. The road from here east, including the Tonio camp, is as fine as one could expect under the conditions the road is progressing rapidly. It is expected to complete it as far as the Tonio dam site.

Directly at the dam site, is booming with several stores, a barber shop, hotel, and things that go to make up a good town. There are no saloons, as the sale of liquor is prohibited by government works. The power canal has been completed.

The canal itself, Mr. Sturgeon says, will be a marvel of engineering. There are great canyons it will have to cross, and solid rocks to go through."

Steel Casting Plant.

THE SOUTHWEST says: "A project that reflects in its coming the development of the mining and structural industries of this section is being put in operation here by the United States Steel Casting Company. It is the purpose of the company to turn out basic open hearth cast steel in its various alloys, nickel manganese, chrome, aluminum, molybdenum and tungsten steel. After January 1, 1904, the company expects to be able to handle twenty tons of steel and twelve tons of iron every twenty-four hours. John E. Mahoney is superintendent of the casting department, and William H. Alshops is manager of the pattern-making and machine shops."

Paper Mill for Guaymas.

ANTONIO ORFILA, a Tucson attorney, has applied to the Mexican authorities for a concession to establish a large paper factory at Guaymas for the manufacture of all kinds of paper, according to the Nogales Oasis. It is proposed that the output of the factory shall be of sufficient volume to supply Sonora and all of the surrounding States which are now purchasing all paper used in the United States, upon which they have to pay a heavy duty.

Corona Pressed Brick.

THE Corona Courier gives an account of the beginning of operations of the manufactory there for the making of pressed brick and kindred products. The plant is located between Railroad street and the Santa Fe tracks just west of where Buena Vista street runs into Railroad street. A sidetrack from the Santa Fe runs into the grounds, the track being somewhat lower than the surface of the ground, to facilitate loading. The plant consists of two boilers, one thirty-five and one sixty-horse power and a fifty-horse power engine, one large American Clay Workers Machinery Company's brick machine, of a capacity of 24,000 brick per day, a nine-foot dry pan and a Grath single mould press for ornamental brick; also a large Clayton air compressor. There are also conveyors, screens and all the necessary shafting to drive the machinery. The buildings are substantial. One large circular kiln has been constructed, and others will be added as soon as possible, also building for storing goods when manufactured prior to shipment. The machinery will be in charge of B. N. Tucker. The plant has been erected under the supervision of M. W. Findley. The stockholders of the Corona Pressed Brick and Terra Cotta Company are Senator A. A. Caldwell and C. E. Kennedy of Riverside, and Messrs. E. A. MacGillivray, M. W. Findley, A. F. Le Gage and W. C. Barth of Corona.

Arizona's Tobacco Prospects.

IN a report of an interview with M. Edwards, who recently made a proposition to the Phoenix (Ariz.) Board of Trade to aid him in a practical experiment of growing tobacco in that vicinity, the Phoenix Republican quotes Mr. Edwards as saying:

"I have just received a sample of imported Turkish tobacco from New York City. This grade is worth \$1 per pound, the duty is 35 cents per pound. The lowest grade of this tobacco, trashy leaves, is worth 50 cents per pound, the highest grade \$3 per pound. My experiments in raising tobacco in the arid country from Turkish tobacco seed show that it can be raised here successfully and of larger size and superior quality. The trouble in raising a fine quality of cigarette and smoking tobacco in Virginia and the Carolinas is too much rain. Tobacco is a dry weather plant, requiring very little moisture. Too much water washes the gum from the leaf, which gives it its fine aroma, and causes the plant to grow rank and coarse."

"In my opinion, this is the ideal country for raising the finest grades of bright leaf and fine cigar tobacco. The Turkish tobacco has a natural tendency to a bright yellow color, orange to lemon. By withdrawing the water the plants will turn a beautiful yellow in the fields. When placed in sheds it will necessarily cure up a bright yellow in color. Curing and setting the color by fires and other artificial means, as is done in the fine tobacco States of the East, will be unnecessary. The dry air is all that will be required."

"The Southern Pacific Railroad for the past year has been conducting experiments on an extensive scale along its line in eastern Texas, and has met with success. The product is pronounced by judges to be in every respect as fine as that of the Vuelta Abajo district in Cuba; that produces the finest cigar leaf in the world."

"In every State of the Union where tobacco has been introduced the production has increased rapidly and soon became a staple product. Much of the land in the Salt River Valley is a sandy loam, the very best for tobacco."

"The climate and seasons are all that can be asked. It is certain that two crops a year can be raised. The lands should be prepared in the fall, the beds sown January 1, and transplanting should begin by March 1."

New Mexico's Salt Lakes.

FOLLOWING is a condensation of a report by Professor Charles R. Keyes, president of the New Mexico School of Mines at Socorro, of the salt and alkali lakes in eastern Valencia county, N. M., as printed in the Santa Fe New Mexican:

The group of lakes in question is situated in the Estancia plains, and not one lake of the group is in any way connected with another. The lakes are from one-half to one mile in width. They are distributed over a territory sixteen miles north and south, and eight miles east and west. The principal lake, known as Big Salt Lake, has supplied salt for many years to people living within a radius of 100 to 200 miles. Even today some of the salt is hauled by wagon as far as southern Colorado. Very rarely a day passes without a dozen or a score of teams hauling away salt. As at present obtained, the salt crystallizes in small cubes, like the coarsest grades of commerce. The salt layer is about half an inch thick lying in a well saturated brine. It is scraped together in small piles with hoes and then shoveled into wagons. Where the salt has been scraped away, brine fills in, and in a short time leaves another layer of salt. This method has been followed by the natives for the last 300 years. At the present time the Big Salt Lake is dry, it being nothing but a snowy field of salt. The natives say that such complete drying up occurs rarely, more than thirty years having elapsed since it last happened. Usually, the lake has from five to ten feet of water. The nearest point to the Santa Fe Central Railway is about four miles at Willard.

In a gallon of the water from the Big Salt Lake there are 10,900 grains of sodium chloride or common salt; 7103 grains of potassium sulphate, 4193 grains of magnesium chloride, 3004 grains of magnesium sulphate, sixty-four grains of alumina, thirty-five grains of silica and 4102 grains of volatile matter. The magnesium sulphate, or epsom salt, which occurs in such large proportions in the brine, and which gives the white alkali appearance to all of the lakes, could easily be precipitated by proper manipulation. Material for the manufacture of soda occurs in two forms and in large quantities. It may be obtained by treating the common salt with sulphuric acid. The most important method of preparation is from the sodium sulphate, the deposit in the Big Salt Lake of this mineral being a foot thick and covering the entire bottom of the lake, at the lowest estimate 1,000,000 tons being available.

Among the older lake deposits are large amounts of gypsum. While many of these beds are alterations of thin seams of pure gypsum and layers of darker, impure gypsumiferous clays, the conditions are identical with those presented in the great gypsum districts of the Mississippi Valley, only there the beds are all hardened and rock like, while in New Mexico the beds are still comparatively soft. The chemical analysis of several of the more extensive gypsum beds shows the material to be exceptionally pure. The uses of gypsum are many, including the manufacture of land plaster and fertilizer, plaster of paris, cement plasters, Portland cement, terra alba, fire-proofing, artificial marble, filler-in papers and sulphuric acid.

Another Wave Motor.

THE San Diego Union says: "J. Minard of San Bernardino has invented a contrivance by means of which the waves of the ocean are made to furnish power for a motor at about one-half the cost of coal or oil. He calls his invention a wave motor, and he says it will carry power by means of a wire for 100 or 200 miles or more."

"Minard's invention is a simple contrivance. By means of a pump which is operated by the action of the waves and currents of the ocean the sea water is conveyed into a conical tank. In this by a mechanical contrivance the water is compressed and forced out onto a conical wheel which by means of the water pressure is made to revolve at an extraordinary rate of speed. This generating apparatus is built up in the ocean about twenty or thirty feet from the shore in such a manner as not to be affected by storms. Mr. Minard says that the power which can be generated is only limited by the number of pounds of water which can be compressed in the tank."

Spur to Holton.

THE San Diego Tribune says: "Supervisor Jasper of the Third district reports that William Holt, the founder of Holton, will start this month to build at his own expense a spur track to connect the new town with the Southern Pacific Railroad."

A LA CARTE.

The Prodigal Son had just returned. "Hooray!" cried his father, "we will kill the fatted calf!" "Not much," replied the wanderer; "if I can't have the turkey I'll go back!" Gracefully yielding, the old man gave the necessary orders.—[New York Sun.]

"You were writing a story the last time I was here, and you read part of it to me, you remember? How did it end?" "I really don't know whether the editor burned it or merely tore it up."—[Philadelphia Record.]

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ERS.

hat is adorned, and the...
Christmas girl who holds...
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herself, this new girl...
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TOE GOWN

NET RINGS

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When the memory of Cheops, the king who caused
to be made for his monument. It is
gold, and engraved with hieroglyphics.
which Darius sealed the mouth of the lion's
after the conquest of Asia, used by Alexander to
the Persians; he used his own signet for
the Greeks.
of Ptolemy, the tyrant, which was flung into
to propitiate Nemesis, and found inside a fish
of his table, contained an emerald, upon which was
a lion, the emblem of poetry; bees, on the other
indicated industry; a bull, production; and a dolphin,
of man. Caesar Borgia wore a poisoned ring.
his medical vanity led him to adopt a signet which
expressing of Apollo slaying Marsyas. The famous
"fish" is a steel seal made in the fashion of
signet, upon which is a representation of St. Pe-
ter's boat of ancient form. All the bulls
of the Spanish Court bear this seal. At the
of a Pope, the figure of St. Peter is destroyed by the
of a lion. When the new Pope is consecrated, he an-
nounces the name he will assume, and it is then engraved
the "Fisherman's Ring."
gave a signet ring to the Earl of Essex, with a
that at the first sight of it she would forgive or
anything. After his commitment to the Tower,
his jewel to her Majesty, but unfortunately it was
and she never received it. The gold signet of
James of Scotland, was engraved upon the face the
and supporter of the kingdom of Scotland,
"In Defens," and her initials, "M. R." On
side of the seal is a crowned monogram. The
weight 212 grains. A signet ring of
presented to the citizens of San Francisco. The cir-
of the ring is cut into squares, which stand at
right angles to each other, and are embellished with a
of the State of California in the
of the banner and stars of the United
and inscribed with "Frank Pierce," in old Roman
style. This ring opens upon a hinge and presents to
a square box of nine compartments, each
containing a specimen of the varieties of ore found in the
of the State. The following inscription:
"Frank Pierce, the Fourteenth President of
the State." The ring weighs almost a pound, and
MAE CROSS FLAMMER.

CHRISTMAS COOKERY.

RECIPIES FROM "HARPER'S COOK
BOOK ENCYCLOPEDIA."

Recipes are from the new "Harper's Cook
Book Encyclopedia."

One cupful of butter is creamed with

and four eggs added, yolks and whites beaten

One grated nutmeg and 1 pound of flour

is gradually, keeping out about 2 ounces of flour

the nuts and raisins. A large coffee-cupful of

and split, and the same amount of hickory

is stirred in last. A

is the best for this cake, and when fin-

is a thick pink icing flavored with rose-water, and

with an edging of home-made burnt almonds.

the whites of three eggs until they are stiff;

the egg three-quarters of a cupful of pow-

der. Mix the sugar in lightly with a knife. Cover

with paper, drop the mixture on it by spoonfuls,

in a moderate oven, leaving the door open for

half an hour. Stick two together with a little

between them.

Blanch 4 ounces of shelled almonds and

to a paste, adding a few drops of orange-flower

oil. Add a few drops of orange-flower

oil to prevent them from getting oily.

of shelled filberts, toast them, and pound

them. Beat the yolks of twelve eggs for a half hour.

very light add the almonds, the filberts, and half

of stale sponge cake, which has also previously

beaten. Mix half pound of butter and add to

the mixture. Mix thoroughly to mix the whole well.

of sugar make a heavy syrup by adding about

of water and boiling it till of the proper thickness.

the mixture already made, stirring constantly

Place over the fire a few minutes when it is

thick, until a thick paste is formed. Drop this

at a time on floured tins and bake in a hot

oven.

Half a pound of sugar, quarter of a pound of

egg, one nutmeg, one teaspoonful of soda,

of sour milk. Cream the butter, and add

the egg. Then add the eggs, beaten separately and

the milk. Then add enough flour to make a

paste which can be handled—one quart will probably

be enough. Roll upon a board, and cut into small cakes;

bake over them and bake quickly.

Beat the yolks of six eggs very light. Put in a

cupful of sugar and a few grains of anise; add one pound of

flour and beat well until the paste snaps, using a little

oil to keep it from sticking to the hand. When ready,

roll into a ball an inch thick, and cut into half-inch

slices. Roll into boiling lard, and when they rise,

take up and drain on paper. They should be

cooked brown. With one pound of sugar make

a syrup. Let it boil till it feathers, and add any

When it comes to a boil, drop in the chestnuts and let
them remain until they have absorbed all the syrup; take
them out, arrange high on a glass dish, squeeze over them
the juice of half a lemon, and sprinkle with granulated
sugar. Serve when cold.

Macedoine of Fruits.—Set a jelly mould into a
pail of rough ice and salt, and arrange the fruits
according to fancy between layers of clear, well-
sweetened jelly, flavored with some liquor, as noyau
or maraschino. If the jelly be poured into the
mould an hour before it is required, the outside will be
sufficiently frozen, and the inner part will be as firm as
can be desired. When removed from the ice pail, turn
out the jelly on a glass dish, first dipping the mould into
tepid water, which will loosen it immediately. The mould
should be covered while in the ice.

Creole Cream.—Beat the yolks of six eggs with half a
teacupful of powdered sugar; add a pint of rich milk. Set
over the fire and stir until very hot, but not boiling; take
off and let cool. Cut up one-quarter pound citron. Or-
nament the sides of a mould with candied strawberries
and leaves cut from thin sheets of lemon jelly. Stir two
tablespoonfuls of melted gelatine into a pint of whipped
cream; add to the custard with the chopped citron; pour
into the mould and set on ice.

Holiday Candies.

Nut Bars.—Peanuts, almonds, English walnuts, or pecans
may be used for this candy. Prepare the nuts by removing
the inner covering and chopping them. Grease the bot-
tom and sides of a broad, shallow tin pan with fresh but-
ter, and put the nuts into it, spreading them evenly. Put
one pound of granulated sugar, with half a teacup of
water and a pinch of cream of tartar, into a kettle, and
boil until thick, but not too brittle. Pour the syrup over the
nuts and set aside to cool. When slightly stiff, mark off
into wide bars with a sharp knife, and let stand several
days, when it will become soft and delicious.

Old-fashioned Butter Scotch.—Put 3 pounds of yellow
sugar in a kettle, with three-quarters of a pound of butter.
Set over the fire to melt; let boil until thick, stirring all
the while to prevent scorching. Take from the fire; pour into
buttered tins or trays. When stiff, mark off into squares.
When cold, break apart, and wrap each square in wax
paper. This candy will keep a long time, and improve
with age.

To Candy Fruit.—Make a syrup with one pound of sugar
and half a teacupful of water. When boiling has nearly
reached the caramel stage, put in any preserved fruits, and
stir gently until they get crystallized; then take them out,
and dry them in an oven or before the fire, but do not let
them get colored.

THE ART OF WASHING DISHES.

THOUGHT, CARE AND SOME SYSTEM WILL SAVE
FINE CHINA FROM DESTRUCTION.

Any half taught girl that has been hired to do odd jobs
about the house is supposed by the average housekeeper
to be capable of washing dishes. This supposition has
caused much destruction of fine china, for no one can
do any work worth doing properly without thought, care
and some system. Dishwashing requires two dishes, one
in which to wash the dishes and the other for rinsing them,
an abundance of heavy linen towels, some lighter ones
for glasses, a good dish mop and dishcloths. The dishcloth
should be of strong linen. Stair crash is excellent for this
purpose, as it will soon become soft enough to be flexible,
and is very durable. Make these cloths about ten inches
long, of narrow crash, and hem them, to prevent the edges
from fraying when they are put through the laundry.

If dishes are gathered up in order and properly scraped,
it saves half the trouble of washing. Greasy and fishy dishes
ought to be scraped and wiped off with pieces of paper,
which may be burned up immediately. It takes only a
little time to wipe away grease, but it saves the presence
of this same grease in the dishwater, where it clings to the
pan and is likely to get on dishes that are comparatively
clean. Fish, it is well to remember, always infects dish-
cloths and towels, if the dishes that have contained it are
not thoroughly wiped with paper before being washed.
Knives should always be treated this way before they are
washed and scoured. It is easier to burn paper soiled with
grease and fish than it is to wash cloths used for the same
purpose.

Put the dishes in hot suds. Use the dish mop freely, and
transfer them to the other pan to be rinsed. Let this sec-
ond pan be very large and have a wooden drainer fitted
in two inches from the bottom, so that the boiling water
poured over the dishes will drain off them. This is the best
and safest way of draining. Wash pots, spiders and kettles
with an iron dishcloth. Where food has adhered firmly to
the bottom of a saucepan and it is difficult to scrape it
off, let the pan, filled with soapsuds, stand on the back
of the stove for a few moments. Wash pots and kettles
outside and inside, rubbing off any pot black on the bot-
tom with a piece of newspaper. When dishes and kitchen
utensils are washed in this way, dishcloths and dish towels
will not become foul and require such continual washing
with soda and scalding water as is usual.—[New York Trib-
une.]

CLEANING UP BRASS.

SOME TIMELY HINTS FOR HOUSEKEEPERS WHO
CARE TO BRIGHTEN THEIR HOMES.

There are many things nowadays to distract the mistress
of a house, be she ever so intensely interested in her
work. But it is necessary that the home be bright,
neat and comfortable, and the inviting appearance of a
home, be it even a tiny flat or wide house, is caused
more by the shine of furniture and other belongings
than indolence is willing to admit. Booker Washington,
that wise philosopher of the colored people, declares that
directly a housewife of his race begins to take pride in
shining tins hung upon her kitchen walls, she has made a
tremendous step toward a home that her husband and
herself are willing to bend every energy in acquiring and
keeping. So important has he found the influence of this

homely bit of cheer, that instead of sending out preachers
of the doctrine of comfortable homes, the applied science
of the shining art is taught by a capable woman, who
goes from house to house, working hand to hand with
the occupant of the kitchen to actually scour and shine
up just the homely every-day utensils.

We need this homely brightness every while as much in
our more pretentious residence, and it is a grave mistake
to substitute wrought-iron ornaments in our rooms for
brass, merely because the latter, while wearing well and
not high in price, is difficult to clean. Silver and steel,
too, lend their cheer in a family room, but there is a
glow and color in bright brass that makes it almost indis-
pensable.

The housewife need not, in order to keep a shining
face in her home, deny herself the hand at golf, and all
the other possibilities that have opened up of late. Let
her gather the hidden away or dull brass ornaments to-
gether, and fifteen minutes will transform a goodly array
of them to pristine brilliancy. Only keep this little
secret in mind, discovered by a lover of fresh air and
country jaunts. While trying her hand at this work, the
reader is advised to notice the effect of any brass orna-
ments on bits of furniture. No wonder our great grand-
mothers loved these shining knobs and handles; they
twinkle out a welcome at early candle light, or in the glow
of the setting sun that is wanting in some of our modern
furniture, be the wood ever so costly.

Oxalic acid has been in use for years in our kitchens
to brighten the boiler, and has not yet found its way
into the drawing or sitting-rooms. It is sometimes, perhaps,
used too carelessly, as it is a deadly poison, and the
mother is hereby warned to keep it on a high shelf and
to have it used only under her own eye. Make a strong
solution of this acid with warm water; directions come
with the usual package sold at the druggists; bathe the
articles well, one at a time, rubbing with a soft cloth. Dry
thoroughly and polish on chamois skin. The writer has
used this on wrought brass of intricate pattern, usually
very difficult to clean, and found it quick and uninjurious.
It is a little trying to the hands, and it is well to have
a care to keep them out of the solution as much as
possible. If the solution is hot, the work will be quicker
and polish more readily. We all know that the acid was
never known to harm the copper of the boiler, and there-
fore need not fear it for our handsomest bric-a-brac. This
is not advanced as a new cleaner for metal only.

Polishing is an excellent arm exercise. Try it and the
warm flash of brilliant brass will be the sure reward.

W. H. F. B.

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—Solid metal—More durable than any plated
dish, because plating is sure to wear off—Re-
quires less heat—Makes delightful re-heats—
Less tendency to stick.
Hygienic—absolutely safe—no compound of
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other metals.

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more humiliating than any other. We have the only
absolutely permanent cure. And we cure in one
treatment leaving no scar or trace. When you are
worn out with the hair returning—come to us. We
cure also red and brown birthmarks, red veins,
moles, all skin diseases, pimples, blackheads, scars,
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tan, moth patches, open pores and oily skin. We
go to the root of the evil and cure the cause.

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Will make you anything in couches,
from \$3.50 to the best there is made.
Make the old one over too, good as new. Upholstering
of any description. Large line of drapery goods, mat-
tings and linoleum.

The Youths' Department—Our Boys and Girls.

HENRI LEROLLE.

SOMETHING ABOUT A FAMOUS PAINTER OF THE NATIVITY.

By Gussie Packard Dubois.

A FAR off among the Judean hills, asleep and still on this Christmas eve, lies the little town of Bethlehem, where in a lowly manger was cradled the child whom the world loves. Where once the shepherds watched their flocks, when to them was first borne the glad tidings of the birth of the Prince of Peace, the angels watch now as the silent stars go by. It is a little city, and not an attractive

full, we wish again that we, too, might have been one of that little group to see with our own eyes where the Christ child lay.

Through all the centuries since that glad night, our best artists have pictured on their canvas this wish of the human heart. Over and over Raphael painted the Christ child in his mother's arms, and the most noted painting in the world today, the most cherished and guarded, is his wonderful Sistine Madonna. It is the one picture that wins the admiration and tender regard of all classes, and all ages. The uneducated and unread, the "submerged tenth" who have never learned to appreciate or to understand the symbolism of the old masters, or the composition and detail of the modern artist, how they yearn toward the pictured child. That is something that they can grasp,

the painting to compare them. As the one to which David when a boy was accustomed to drive his flock, when he was king, he came back for entrance for rest and health, the angels. It was probably about four feet high, and twelve or fifteen feet wide. The sides were mangers, low enough for the stones laid in cement. There were no windows of any kind. Dust and chaff yellowed the crevices and hollows, and thickened the air. The place was cleanly, and to appearance as the arches of the inn proper. The floor is like the picture.

Of the shepherds he says: "As they continually, their hair stood out in shocks; their beard covered their faces down the breast; mantles of the fleeces on, wrapped them leaving the arms exposed; broad tunics, garments to their waists; their sandals were of quality." Here, too, the artist carried out his thought. The coincidence is the most striking. Wallace has written the greatest story of modern times, and Lerolle has painted the modern picture of the nativity.

Most of the artists about whom we have been compelled to labor in poverty with scanty means. He is a man of intense one of the most prominent of living artists, to paint as he chooses, merely for love of art, no thought of support. He is a Frenchman born in Paris in 1846, and in 1880, he won the medal of the first class.

Do not forget that Tissot, who recently whom we have heard so much in recent years of scenes in the life of Christ, was also a man.

Although he was city born, Lerolle painted the peasants and the toilers. One of his pictures is called "Morning." There are soft mists, and the distant trees loom like clouds through the peasant women are gathering potatoes in the background are two more, and the wagon. The potato sack is so carefully packed looks as if you could pick it up, and you can feel the dampness of the sack.

Another picture is called "In the Country," a young girl leading home her sheep at her father's crook is used to carry her over her shoulder. Her free hand is resting on her, as if to caress a favorite lamb. The tree trunks, with a few light leaves on them, a distant farm scene, are all of the landscape in the Luxembourg gallery, Paris.

In the Metropolitan Museum of New York, "At the Organ." This is noted for the large church, and the reflected lights, things in it. It shows an organ loft, where a young girl while others of the quartette are singing.

In the Boston Museum of Fine Arts, "Banks of the River," a country scene, much of the time on paintings for sale, which work he is much noted. St. Louis, Paris was decorated by him.

THE CHILD'S FESTIVAL.

Christmas is the Child's festival. It creeps into the world's heart as a child, other birthdays, but no other great human attention upon the weakness and of his infancy. The attitude of an age is a sure index of its attainment toward life, and the light of this century shows a cherished, understood and appreciated. Froebel, Hans Christian Andersen, and other people have opened the door to these little ones, and the child has become common in literature that we scarcely find absent from earlier literature.

The Founder of the kingdom of peace in the midst of his disciples, and he has over again, and the charity of life is the gift of a cup of cold water to a child.

We are sometimes in danger of the use of pictures. Those here reproduced are the best with which to emphasize the lesson of birthday we keep. Tell the children of selfishness, purity, truth, kindly words, others, forgiveness, gentleness. Teach them because he lived these things that he loved the world, and that they must so love. Children long for love; give them. You may be like the dear Christ who said: "don't" may be forgotten.

Imre Knapp's "Mary and Child" is a sweet, comely faces of the angels, dear ones. We cannot always find the faces of the old masters. The mother of some one whom we might know and the fineness of all the drapery, the flowing, fluffy wings of the angels, all satisfy the child, as it should be, the children love a baby! The angels dropped for the absorbing pleasure of careful arms for one blissful moment, a threefold attraction for the wee ones: imagination; it is the subject nearest to child, like themselves; it tells a story whom they love, and whose birthday of rejoicing in all the year.

Joshua Reynolds's "Angel Choir" is



ARRIVAL OF THE SHEPHERDS—LEROLLE.

one. The streets are narrow, only one in all the town being wide enough for carriages. Usually they are dark and silent, but on Christmas eve they are filled with pilgrims from all over the world. There are foreign faces, strange costumes, and the sound of many different languages, and for this one night in the year the quiet streets are full of life.

There is a very old church in the town, supposed to have been built over the manger where Christ was born, and toward this church long processions are moving, bearing great candles and many banners. Against the dark background of the hills the lights flare and flicker, trailing across the darkness and disappearing, but high up in the vault of heaven the stars shine steady and strong as they shone nineteen hundred years ago.

All night services are held in this church, and at midnight there is a solemn mass by the patriarch of Jerusalem, while the chapel is crowded with people, many of them sitting on the floor. There are few little children in the throng, and the faces of the few who are to be seen do not look like the faces one would see in an American village, for although it was the birthplace of the Christ child, the Christ spirit that cherishes and uplifts childhood is little known.

Guarding the square in front of the church are lines of Turkish soldiers—force, not peace, and here are bishops and priests dressed in the most gorgeous robes, and forming into line. Inside is the glare of lamps, the smoke of candles, the heavy odors of burning incense, but without the fresh air is blowing over the hills.

About a mile east of the church is the "Field of the Shepherds." Here, while the flocks lay sleeping, and the shepherds watched, through the solemn midnight came the angels' song, "Peace on earth, toward men good will." How they must have wondered, those rough men, at the message, and the voices of the angels. Perhaps there was here and there among them a boy permitted to go with his father and learn to watch and guard the flock. How sweet and full of mystery the heavenly song must have sounded in his young ears, not dulled as yet by earth's discords. It sends a thrill through our hearts to think what it must have been to be awakened from the dark sleep of childhood out on that lonely plain in the hush of midnight, and see, instead of the darkness of the familiar hills the radiance of that angelic host, and hear the music, so strange, so wonderful, so sweet. We can imagine how, when the song had died into silence, and the dark outline of the hills again shut them in, after the first fear was over, they said to each other, "Let us go into Bethlehem and see this child of whom the angels sing." We follow them in thought over the winding paths, and into the village, and ever as the Christmas tide is at its

something in which they are educated. It appeals to all their latent love and tenderness. It holds them. It lifts them up. It is because of this that the Sistine Madonna and other great Madonnas never seem out of place when they are taken from the church and placed in the home, or the schoolroom. Because, too, the interest of all except art students is centered upon the mother, and that wonderful babe, the picture never seems lacking when that detail alone is reproduced.

There are so many paintings of the nativity that it would seem as if no artist of today could find any new representation, but Lerolle has painted one that you can never mistake for any other. It is pronounced by those who have traveled in the Holy Land nearer their ideal of the lowly birthplace than any other ever painted.

In the paintings of the old masters, the figures surrounding the infant Christ show so much splendor of architecture, robes and crowns, of curtains and angels, that the attention is drawn to these, but Lerolle gives us only the plain interior of a cave, with the babe on his mother's lap, and Joseph sitting beside them, while a donkey lifts an astonished gaze to a group of rough peasants near the entrance.

It is, after all, not that which we see outlined in this picture that holds us, it is that which is only hinted at, and left to our imagination. We feel it in the radiance that streams in between the massive timbers, as if from the guiding star that rested above the manger. We feel it in the tender attitude of the mother, and the helplessness of the little form within her embrace. We see it in the fear, wonder and adoration of the shepherds, their faces shining with the light, and even in the half-shrinking attitude of the dogs at their feet. One of the shepherds kneels, half in fear, half in worship; one with raised hand seems to express in his more refined face the realization of the cherished hopes of years; the younger ones, mere overgrown boys, stand on tiptoe, full of wide-mouthed wonder. It is not merely a little humble baby and his peasant mother that they see. It is more, but what the painter can not tell with mortal brush and canvas. Because of this which we see, yet cannot depict, artists never tire of striving to best show forth the mystery, musicians never tire of striving to voice it, and the greatest writers choose it again and again for their theme. Because of it, the love that is in the world is a little larger after each Christmas Day, and the lullaby of the manger cradle soothes the world's restless fever. Because of it we hush earth's discords, and strive fearlessly to sweep impurity from our crowded cities, that the whole world may "send back the song, which now the angels sing."

In his story of Ben Hur, Gen. Lew Wallace has given us a pen picture of the scene chosen by Lerolle for his painting, and it adds to the interest both of the story and

It came upon the morn'
That glorious song
From angels bending
To touch their harp
"Peace to the earth,
From heaven's all-
The earth in solemn
To hear the angels

aces satisfy our deli-
and the arrangement a
for the supernatural,
to the true lover
child that comes "M
then that it is portraits
friend of the paint
really portraits of
They will love it be-
teach these lessons,
learn through children
homes, and most of
the centuries, to beco-
says, "God bless us, O

SAY!

For those who keep th-
Beyond all pain and
Beyond the reach of
Thy heavenly courts
We thank Thee, Lord, th-
Are dim with longing
And yearning arms ca-
The slow march of

For those who still with-
Are anxious fears a-
So many pitfalls lurk
So many hidden snares
To those who in the h-
No harm can e'er be
We thank Thee, Lord,
Safe on the other sh-
OU

THE TWISTED

LE PUNISHMENT OF
BELIEVE IN SAN

By a Special C

COURSE there aren't an-
over will be. Girls bell-
Baby Blue-Eyes stared
legs very far apart,

Richard Henry Jones!
ing? I most expect t-
Santa Claus, either."
me there isn't! How c-
this chimney, I should
own, how could he help
there isn't any Sant-
that we wrote him la-
identical thing to b-

Boy and Baby-Blue-Ey-

he called too softly, fo-
papa's voice was he-
Henry and Rosetta h-
spered Baby-Blue-Ey-
Baby-Blue-Eyes had been
had been brushed
and papa, and Dickey
prayers, she lay down
the girls are said to do,
depl, she dreamed.
she awoke, to see h-
her hair was like fillet-
how lark's sweetest no

Girls.

compare them. He described David when a shepherd gave his flock for safety, and he came back to the old and health, bringing great safety about forty feet low, five or fifteen feet in width, low enough for sheep to enter. There were no stalks or chaff yellowed the floor, and thickened the air, and ceiling like bits of dirty linen, and to appearance as the inn proper. How easily the picture.

He says: "As they went, they stood out in thick, covered their throats and mantles of the skin of animals, wrapped them from exposed; broad bells girdled; their sandals were of the artist carries out the incidence is the more in the greatest story of the times, and Leroile has painted of the nativity.

about whom we have called to labor in poverty. He is a man of independent prominent of living artists, to support. He is a French painter, 1848, and in 1880, thirty-two of the first class. That Tissot, who recently heard so much in recent years of life of Christ, was also a wealthy

city born, Leroile paints well. One of his pictures is called "The soft mists, and pearly from like clouds through the are gathering potatoes into sack is so carefully could pick it up, and you dampness of the air.

is called "In the Country," home her sheep at sunset, used to carry her outer her free hand is stretched as a favorite lamb. The few light leaves on the are all of the landscape, burg gallery, Paris.

At the Museum of New York is noted for the large reflected lights, things in which a loft, where a young girl the quartette are listening. Museum of Fine Arts is another, a country scene. He is on paintings for wall decorations much noted. St. Martin's ed by him.

THE CHILD'S FESTIVAL.

The child's festival. On the world's heart as a child. But no other great character upon the weakness and the attitude of an age toward its attainment toward a high of this century shines upon food and appreciated as a Christian Andersen, and a have opened the door into the, and the child has now the sure that we scarcely remember earlier literature.

of the kingdom of peace His disciples, and bade them the charity of life He symbol cold water to a child. times in danger of forgetting. Those here reproduced to emphasize the teaching of ep. Tell the children who, truth, kindly thought and gentleness. Teach them these things that He is that they must so live if they long for love; give them the dear Christ child, may be forgotten.

"Mary and Child" is the faces of the angels, lovely cannot always feel so masters. The mother's love, we might know and love. the drapery, the flowers, the angels, all satisfy children as it should be, the most a baby! The dream of absorbing pleasure of baby one blissful moment. The for the wee ones; the subject nearest to the selves; it tells a story, and whose birthday is all the year. The "Angel Choir" will

It came upon the midnight clear,
That glorious song of old,
From angels bending o'er the earth,
To touch their harps of gold;
"Peace to the earth, good will to men,
From heaven's all-gracious King."
The earth in solemn stillness lay,
To hear the angels sing.

THE ANGELS' SONG.

Still through the cloven skies they come,
With peaceful wings unfurled,
And still celestial music floats,
O'er all the weary world.
Above its sad and lowly plains,
They bend on heavenly wings,
And ever o'er its Babel sounds
The blessed angels sing.

Oh ye, beneath life's crushing load,
Whose forms are bending low,
Who toil along the climbing way,
With painful steps and slow;
Look up! For glad and golden hours
Come swiftly on the wing;
Oh, rest beside the weary road,
And hear the angels sing!

—[Edwin H. Sears.]

then satisfy our delight in the natural beauty of the arrangement and expression answers to our the supernatural, that which lies beyond our to the true lover of childhood seems so near child that comes "trailing clouds of glory." Tell that it is portraits of a real child, whose father kind of the painter, that the five different many portraits of the same child in different They will love it better because it is real. teach these lessons, let us for this one season of from through children in art, in angelhood, and in homes, and, most of all, through the Supreme the centuries, to become as little children; and as up, "God bless us, every one."

SAYS.

For those who keep this Christmastide
Beyond all pain and sin,
Beyond the reach of ill or hurt,
Thy heavenly courts within,
We thank Thee, Lord, though still our eyes
Are dim with longing tears,
And yearning arms can scarcely wait,
The slow march of the years.

For those who still with us abide,
An anxious fears and cares,
So many pitfalls lurk unseen,
So many hidden snares.

To those who in the home land dwell,
In harm can e'er betide;
We thank Thee, Lord, for all our own,
Safe on the other side.

GUSSIE PACKARD DUBOIS.

THE TWISTED TONGUE

THE PUNISHMENT OF A BOY WHO DID NOT BELIEVE IN SANTA CLAUS.

By a Special Contributor.

There aren't any fairies: Never was, and never will be. Girls believe any old thing! Baby Blue-Eyes stared at her twin brother, who sat up very far apart, gazing solemnly into the air. Richard Henry Jones! How dare you say such a thing? I most expect to hear you say, next, there are three lunts! How could a great, big, fat man like him, I should like to know. And if he were here, how could he help but burn his clothes? A fine lot of Santa Claus, how did he get that he wrote him last year; and how did he get that thing to bring us, if there isn't any Santa Claus.

"Baby and Baby-Blue-Eyes, time for bed!" called the mother.

The mother called too softly, for the talk by the fire went on. Papa's voice was heard.

"Baby and Baby-Blue-Eyes, hurry," Dickey Boy called.

Baby-Blue-Eyes had been bathed, and her pretty hair had been brushed, and she had kissed Papa and Dickey Boy good night, and she lay down in her white bed, and she was so tired, she went right to sleep; and she dreamed.

When she awoke, to see by her bed a most beautiful thing like filtered moonlight, her voice like the sweetest notes, her robes like the

ocean spray when it dashes against a rock. As the little girl gazed in wondering admiration, she noticed all through the room a perfume like that of an orange grove at twilight; and if you don't know what that is, you are very unfortunate, indeed.

"I am the Spirit of California Christmas," said the beautiful one. "Come with me, and we will visit Santa Claus in his home."

"Goody!" exclaimed Baby-Blue-Eyes, sitting up. "Did you call Dickey Boy?"

"We do not want Dickey Boy," said the Spirit sternly. "A boy who says there is no Santa Claus, indeed! What have we to do with him?"

"He is my brother," said Baby-Blue-Eyes thoughtfully. "He stayed home with me when I had a cold, and couldn't go out. He is gen-er-al-ly very good to me. No, I think I won't go without Dickey Boy. I thank you very much, beautiful Spirit."

Then the Spirit said sharply: "Well I suppose if he has to go, he has to; come quickly, or you won't have time."

So Baby-Blue-Eyes hopped out of bed (or she dreamed she did) and ran over to Dickey Boy's white bed, and woke him. They followed the Spirit into her airship, which was padded with thistledown, and when they had sailed over frost and over flowers, over land and over sea, they came to the house of Santa Claus. The Spirit knocked at the door, and a maid servant opened the door one inch, and asked:

"Can you pronounce hikerstomph?"

The beautiful Spirit said hikerstomph, and the little girl said hikerstomph, but Dickey Boy, try as hard as he might and did, could not say the word. Then the maid servant opened the door two inches, and the little girl went in after the beautiful Spirit. The maid servant tried to shut Dickey Boy out because he couldn't say hikerstomph, but Baby-Blue-Eyes kept fast hold of his hand, so you see, when she was in, he was in, too.

They went all over the house of Santa Claus. They saw where he made the toys for all the children of the world; they saw tons and tons of red and white streaked candy, and wagon-loads of chocolate drops; they ate all the candy they wanted, and they played with all the toys they wanted; Baby-Blue-Eyes kissed all the dolls she wanted, and Dickey Boy beat all the drums, and blew all the horns he wanted. Then, when they got tired of eating and kissing, and beating and blowing, they went into the last room of all, and there sat Mr. and Mrs. Santa Claus on a throne, like a king and queen.

Santa Claus smiled at Baby-Blue-Eyes, but he scowled—oh, how ter-ri-bly he did scowl!—at Dickey Boy. And he said, in a pro-di-gious voice:

"Who is this boy in here who can't say hikerstomph?" Before Dickey Boy could answer, he said in a more pro-di-gious voice:

"You boy who can't say hikerstomph shall be henceforth and forever the knight of the twisted tongue. It is your punishment for not saying the word, for every one who believes in Santa Claus can say hikerstomph."

Dickey Boy tried to look as if he didn't care, but Baby-Blue-Eyes trembled.

"Oh, dear Mr. Santa Claus," she whispered, "how long is henceforth and forever?"

"From next breakfast time till next good night," he answered, and then, all of a sudden, they were at home again, and at the breakfast table (or Baby-Blue-Eyes dreamed they were.)

"Will you have an egg, Dickey Boy?" asked mamma. "I don't see why we can't have sam handwiches, once in a while," answered Dickey Boy pettishly.

Papa looked at him, oh, so sternly, and said:

"What are you talking about?"

"Illy Atkins said they have sam handwiches for breakfast, and Silly's sister said so, too," Then Dickey Boy

turned red, but, try hard as he could, he couldn't say ham sandwich, nor Billy Atkins, nor Billy's sister.

Papa sent him from the table, and when Baby-Blue-Eyes tried to explain, she couldn't. They went sorrowfully to school (or she dreamed they did,) and at school it was worse.

The teacher gave them some pretty cards to read from. The one she handed to Dickey was blue, and had on it the picture of a lazy boy. Dickey Boy could read very well, so when she nodded to him, he started in a very loud voice:

"Can Dreen is a bazy loy. He does not wike to lork." The children tittered, and the teacher said sadly: "Richard Henry may go into the hall for awhile."

It was a great disgrace to be sent into the hall for awhile, and a tear fell on Baby-Blue-Eyes' red card, for she had tried to explain, and her tongue wouldn't work at all.

It is pretty hard work to study on the very day before Christmas, even in a dream; so after the last recess, the teacher said they would have a visit. That meant that anybody who has something interesting to tell might tell it, and several hands went up.

Richard Henry's hand went the highest. Indeed, he was so anxious that his body lifted itself away out of his seat. The teacher felt very sorry that she had had to punish any little boy on the day before Christmas, so she told him to begin.

"One Jourth of Fuly, we all bent to the weach, and we saw right in the daytime some rye stockets go up, and a plag and a farachute."

By this time, the children, all but Baby-Blue-Eyes, were giggling, so the teacher sent Richard Henry into the hall again. Then she told them of the Japanese day fireworks; how up in the air will be floating a beautiful Japanese lady, or a dog, or a tiny balloon; but the loveliest of all was what poor Dickey Boy had tried to tell them—the American flag with a parachute attached to make it float. And while it floated, the band always stood up and played the "Star-Spangled Banner."

And all the children who had never seen Japanese day fireworks said: "Oh!" and "My!" and all who had seen them had something more to add, till the bell rang and they all ran home.

Baby-Blue-Eyes dreamed that Dickey Boy ran straight for mamma's arms, crying: "I dish I could wile! I dish I could wile!"

And poor Dickey Boy cried till he had been bathed, and his stubby yellow locks had been brushed, and he had kissed papa and mamma and Baby-Blue-Eyes good night, and he had said his prayers, and had lain down in his white bed. Then all of a sudden he said hikerstomph, and he looked through the door where eight stockings hung by the fireplace, and a quivery feeling went all over him (or Baby-Blue-Eyes dreamed there did) as he thought of what would be in those stockings in the morning. Then he said hikerstomph again, and went to sleep.

INA WRIGHT-HANSON.

UNFORTUNATE PHRASE.

"Oh, John!" cried Mrs. Subbubs, the moment he got home, "you told the cook this morning to clean up the silver, didn't you?"

"Yes," he replied. "Why?"

"Well, she cleaned up the silver and a lot of other things, and she's gone with them."—[Philadelphia Press.]

HIGH ART.

"He has the true artistic instinct."

"How does he show it?"

"He always asks more for his pictures than anybody is willing to give."—[Cleveland Plain Dealer.]

(CONTINUED FROM 17TH PAGE)

(CONTINUED ON 15TH PAGE.)

Care of the Body.

(CONTINUED FROM 28th PAGE)



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thorns or soreness, and keeps the

California Cream of Lemon is a

prevents danger of disease from

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all drugists, or by mail.

Dr. Stall has published a book on this subject, in which one could expect the very best advice, and what advice does he give? "Indulgence," which leaves the matter to the individual, since this is quite compatible with the law of nature.

It is quite correct in regard to the influence of the passions. You cannot expect a man who has his system with a surplus of stimulating and perhaps stimulating drinks—although the latter is the time to kill the powers, while stimulating the passions. That is to say, if he has a good digestion, his excitement goes into circulation. Other- wise, he gets dyspepsia, and his stomach will occupy his attention. It is time that a crusade should be waged against intemperance in eating. Many prohibitionists are temperate, when it comes to eating—and even when it comes to drinking, as far as the stimulants coffee and alcohol are concerned.

It has previously suggested, it would facilitate in this respect to adopt the German method of separating the body, followed now to some extent in this country. This is also desirable from the standpoint of hygiene, because when one person is restless, it is the mother to obtain a sound night's rest in bed.

Regarding a cure for dandruff. Make a salad of your hair, with a mixture of pure lemon juice, rubbing it in at night. In the morning wash it out with a good antiseptic soap. The product, known as "Ovo" soap, which is of this department has found as good as any. Also, massage the scalp thoroughly with the fingers, morning and evening. This is the best remedy for dandruff and falling hair. Keep the blood pure. The ultimate cause of dandruff is in the blood. Avoid coffee, pastry, animal fat, and alcohol.

For Red Noses.

There is a communication of a correspondent, in which he should do for a "blooming nose." D. C. recommends a poultice made from sweet apples, put into a thin muslin cloth,

and applied to the nose on going to bed, tying it around the head, to keep it in place, washing it off in the morning with tepid water and "caststeel" soap, also drinking plenty of buttermilk. The same treatment, he says, is good for granulated eyelids or inflamed eyes.

Sanatorium Wanted.

A CORRESPONDENT writes that he is anxious to take the fasting cure, but has not the proper conveniences and surroundings, and asks The Times to suggest the establishment of such an institution near Los Angeles, where people could fast under proper conditions.

Such a suggestion has already been made, more than once, in these columns. There is room here, as The Times has frequently said, not only for that, but for a thoroughly equipped and up-to-date sanatorium, where patients may have hygienic diet, sweat baths of all kinds, including wet packs, sun baths, electrical treatment, scientific massage, and everything, in short, that belongs to a thorough hygienic system of curing disease. Such institutions are numerous in the East. It is really astonishing that in this section—considering that it is one of the leading health resorts of the world—nobody has yet attempted to fill this "long-felt want." There can scarcely be any question that such an institution would pay well from the start, and would be a grand success. If properly conducted, by men who have something more in view than the mere making of money out of the patients. Needless to say, a man to make a success of such an institution must be thoroughly sympathetic, and heartily interested in his work, for the sake of the work. Such an institution should stand in spacious grounds, firstly to keep it away from defilement and noise, secondly, so that plenty of shady, attractive and well-graded walks may be laid out for the use of invalids, upon which they could exercise, gradually increasing the task, and thirdly, in order that an ample supply of fresh fruit and vegetables may be raised, together with pure milk and eggs.

Canker Sores.

G. L. T. WRITES as follows:

I have for several months past been reading very closely this department of The Times, and have become very much interested in it. I have received many valuable hints and good advice, but have seen nothing that quite fits one part of my case. I have for a year past been troubled a great deal with canker sores in the mouth—not all the time, but they will come on and go away again for a time. They are very sore and painful. I diet a great deal, but it doesn't seem to help this part of my case. I eat a light breakfast, dinner and light supper, very little meat, and no pork at any time. Am a great lover of milk and milk dishes of all descriptions, and eat it a great deal. It always seems to agree with me fine. I eat very little pastry, no ice cream and no pickles or sour stuff of any kind. If you could give me some advice along the line of diet and hygienic treatment I would be very thankful, and it might benefit not only me, but many others. I take cold very easily, and this winter am taking a cold sponge bath every morning on rising.

Try dropping the milk from your diet. If it did not agree with you, it would ferment in the stomach, and not go into circulation. As it is digested, it goes into circulation, and probably results in over-nourishment, which breaks out, causing nature to seek relief in the shape of sores. This may not be the true cause. Of course it is impossible to diagnose a case like this on such limited information. Otherwise, your diet seems to be a sensible one. Eat plenty of watercress, watery vegetables and fresh fruits—but not at the same meal, also tomatoes. Take a sweat bath once a week. Avoid coffee. Buttermilk is a good thing to drink. Keep the bowels open, if necessary, by injections. As a local application you might use pure olive oil, also wash with borax water. However, no local application will remove the cause.

THE DEPARTURE.

And on her lover's arm she leant,
"And round her waist she felt it fold,
And far across the hills they went
In that new world which is the old;
Across the hills and far away,
Beyond their utmost purple rim,
And deep into the dying day,
The happy princess follow'd him.

"I'd sleep another hundred years,
Oh love, for such another kiss;"
"Oh wake forever, love," she hears,
"Oh love, 'twas such as this and this."
And o'er them many a sliding star,
And many a merry wind was borne,
And, stream'd thro' many a golden bar,
The twilight melted into morn.

"Oh eyes long laid in happy sleep!"—
"Oh happy sleep, that lightly fled!"—
"Oh happy kiss, that woke thy sleep!"—
"Oh love, thy kiss would wake the dead!"
And o'er them many a flowing range
Of vapor buoy'd the crescent-bark,
And rapt thro' many a rosy change,
The twilight died into the dark.

"A hundred summers! can it be?
And whither goest thou, tell me where?"
"Oh seek my father's court with me,
For there are greater wonders there."
And o'er the hills, and far away
Beyond their utmost purple rim,
Beyond the night, across the day,
Thro' all the world she follow'd him.

—[Tennyson.

There are some people who wish that the drain on their purses at Christmas time did not come so near the annual reckoning on the first of January.—[Providence Journal.

THE FOUR GRACES.

A blue sky, a red rose, a tress of gold, a song;
These make beautiful the earth, and banish thoughts of
wrong.
Until the hill, the vale and rill to my glad vision seem
Arrayed in all the beauty of a peri's fairest dream.

When fervid shines the heat of day amid the crowded
throng
A blue sky, a red rose, a tress of gold, a song
Dispel the thousand little doubts, each shadow of a care,
And gazing on the heavens I can see that hope is there!

When longing for a something that is better than I've
known,
A knowledge that my weary feet are coming to my own,
A blue sky, a red rose, a tress of gold, a song—
Are staffs for my infirmity, and make me brave and
strong!

A health to you, good friend of mine! A plenty to you
all!
May each one be at his home when Fortune makes her
call!

With sweetest wine to lips of mine, I pledge both deep
and long
A blue sky, a red rose, a tress of gold, a song!

—[Alonzo Rice, in Lippincott's.

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...is another celebrated champagne
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...the age when our fathers were young, "Champ
...was written of his father, a bottle o
...must a bottle of fizz.
...no more fascinating industry in the

[AUTHORIZED ANNOUNCEMENT.]

**An Enterprise that is Doing Much for
Industrial Development.**

Aside from the distillate and lubricating and illuminating oils the British-California Refining Company manufactures tons of California asphalt. In conclusion let it be said that Los Angeles may well be proud of her growing industries, prominent among them being her refineries which are not only adding to the interest of this city in many ways besides furnishing superior grades of both illuminating and lubricating oils at prices that are appreciated by the purchasing public.

**A Refining Plant That is Modernly Equipped
and Conducted.**

present here is a large stock of illuminating oil on hand which the company proposes to place upon the local market shortly. The quality is the best and the price the lowest. The company is also manufacturing oil, the superintendent has succeeded in producing an absolutely pure oil superior to anything that they have hitherto manufactured. He has been engaged in working on the process for the past six months, and has so far perfected it that the oil will be placed on the market very soon. In addition to the products already mentioned the Hercules plant has made during the past season a tree spray for killing scale on citrus and deciduous fruit trees. This branch of the industry promises to become one of the most important features, and the demand is constantly increasing. As well as for specially prepared compound of distillate and other ingredients which has proven most efficacious in killing the wild morning glory, Russian thistle, and other ob-

The record the company has made within the past year speaks volumes for the conservative nature of the management. The officers of the company are numbered among the most prominent business men in the city.

THE SOUTHERN REFINING CO.

**A Substantial Contributor to the City's
Manufacturing Interests.**

The storage capacity of the plant is second to none in the city. With an immense 10,000-barrel tank, another 5000-barrel tank, both for crude oil, and five 1000- and four 500-barrel tanks and twenty-four tanks of 100-barrel capacity each, it will be recognized that the company is amply equipped for economically handling both raw and refined oils.

A product of the plant that has won immense success in the field is the tree spray that is now so generally used throughout the fruit districts of both southern and northern California. To the Southern Refining Company belongs the credit of having produced this remarkable compound, that has received testimonials and endorsements from the leading fruit growers of the State. In addition to its efficacy it has the advantage of economy two and one-half gallons of the tree spray being sufficient to prepare 100 gallons of the solution ready for application to the trees. For San José, black, red, yellow brown and purple scale it has proven most successful when properly applied, while for red spider and other mites it has been used with equal success. A practical demonstration of its value in combating the walnut scale is to be made next month at Fullerton, when prominent walnut growers from that section will present the results of their tests. The Southern Refining Company is placing this tree spray upon the market less than three years ago, had to overcome a deep-seated prejudice. That they have succeeded has been amply evidenced by the constantly increasing sales which have been made.

In the way of other products, the plant manufactures all grades of distillate, and lubricating oils, while asphalt for varnishes and paints, pipe-dipping, roofing and paving is made in large quantities. Most of the asphalt is disposed of in eastern cities, where, in common with all California asphalt, it has established a reputation far superior to any other produced.

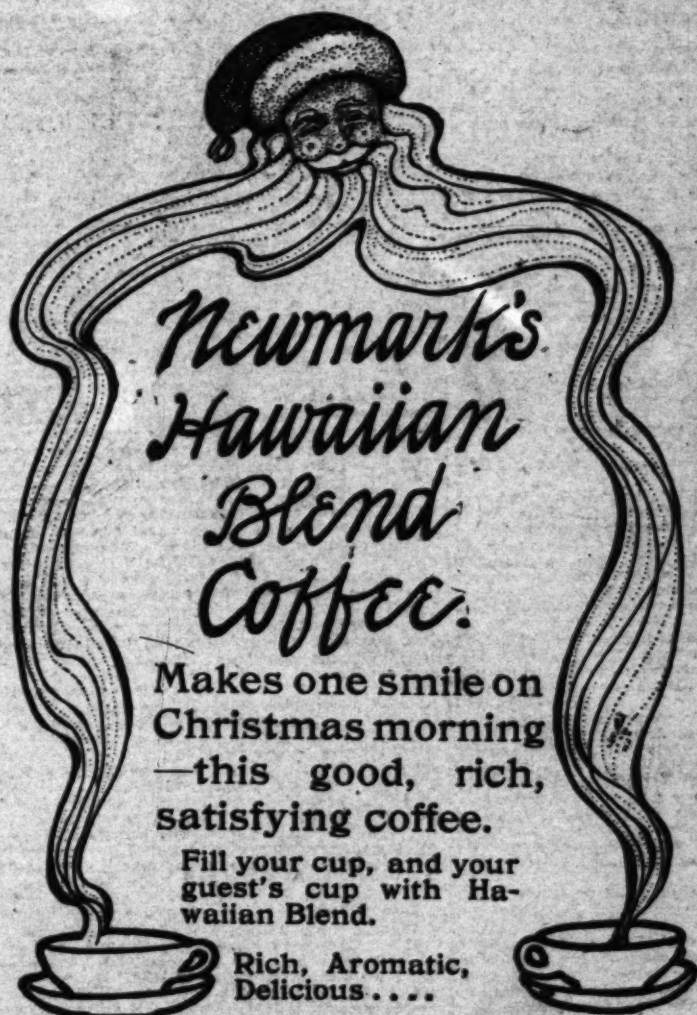
As a factor in the manufacturing world of Los Angeles the Southern Refining Company has maintained a prominent position, and through the agency of their widely distributed products have assisted in the up-building of this section more than many agencies generally credited with a greater influence. Mr. Harrington Brown, president of the company and its principal owner, has been active in all matters pertaining to the advancement of the city's best interests for many years, and is thoroughly informed on matters pertaining to the oil industry. Mr. John J. Raciagnoli, secretary of the company is gentleman of many years' experience among the refineries of this city. He is acknowledged to be one of the most competent refiners on the coast, and gives his personal attention to the minutest details of the business with the result that Angelus oils have won a reputation and a name that insures them a ready sale wherever they are placed upon the market. The company has made a record which has placed it well to the front as one of the most progressive and liberally conducted establishments in the city. It has gained the esteem of the public for the manner in which it has contributed to the development of one of California's greatest industries.

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You can't buy a finer chocolate confection in any city in the United States than Bishop's Rubidoux Chocolates. No other chocolates have the pure fruit flavorings that Rubidoux have. We have just put on the market a *New Souvenir Box of Rubidoux Chocolates* that every one should be sure to see. It is a very handsome box filled with a pound of Rubidoux. Sells at the dealers for 50c. If he cannot supply you with the new souvenir box, telephone us, either phone Main 2560 or send us a postal and you will be supplied immediately.

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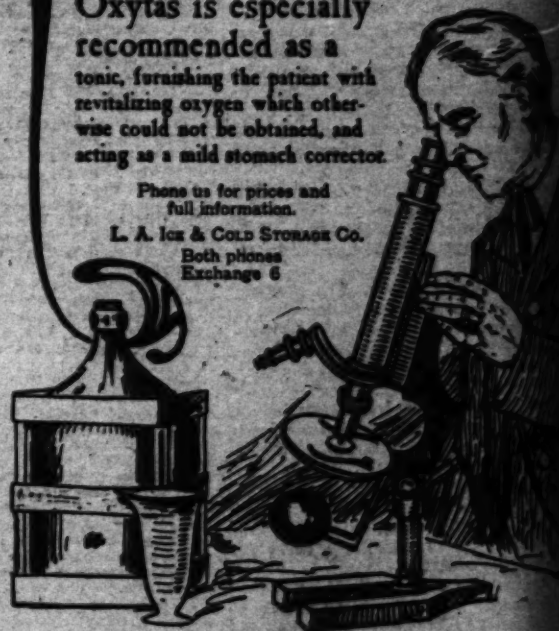
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Mexico and the Mexicans.

PUBLISHED BY LOS ANGELES TIMES.

SECOND SECTION.

FIRST SECTION, 32 PAGES
SECOND SECTION, 28 PAGES

Picturesque Mexico—Her Great Valley—The Fertile Tropics.

STRIKING SCENERY.

BEAUTIFUL VIEWS TO BE HAD FROM NORTH TO SOUTH.

MEXICO is not so slow as the world suspects. One of the swiftest railroad rides on record, and so rapid that the participants still dream about it, is a run on a division of the Mexican (Vera Cruz) Railroad a few days since. It was a small party in honor of the American railroad men, who are in Mexico on business, but who modestly refrain from giving their names. They were accompanied by Col. Isaac M. Hutchins, the concessionaire of the car works being built at Orizaba, J. N. Muir, superintendent of motive power of the Mexican Railway and his clerk, C. H. also a road foreman and a mozo,* a party thus composed of Americans, Englishmen and Mexicans. The

curves that came and went so instantly, tunnels that opened and shut as if by magic. Fire flashed from the rails of shining steel as the car sped onward, and the brakes smoked, but the car was under perfect control. A little stone on the rails, a loosening bolt on the car, and the story would have been cut short. The tracks of the Mexican Railway are laid in the mountain division, along the mountain sides. The total fall along the tracks from Boca del Monte (Mouth of the Mountain) to the valley below is, in a distance of eighteen miles and a half, 3071 feet. As soon as the lower levels were reached, and the car could strike a mile of straight track, Mr. Muir opened up on a piece of 4 per cent. grade, just to give an exhibition of speed, taking off the restraint of the brakes. The rest of the run to Orizaba was uneventful.

Mexico's Oldest Railroad.

The Mexican Railway, the oldest railroad in the republic of Mexico, originated as early as 1837, or seven

lives in this city. The material was brought up the mountain on mule back, in pieces, and the work was said to have commenced at the Mexico City end, the wrong end, as railroad men would say; on account, however, of the danger from bandits infesting the mountains. Each work train was heavily guarded, as construction pushed slowly to the coast. In 1857 the government granted a concession for the continuance of the road to Antonio Escandon, who had meanwhile secured the Rosso grant. Revolutions for years interfered with the work, but on the inauguration of the constitutional government, April 5, 1861, the concession was modified and amplified. The occupation of Vera Cruz in December, 1861, by the allied forces of England, France and Spain, followed by the war with the French and the Austrians, and afterward with the Mexican imperialists, further interrupted the building of the railroad.



On December 23, 1863, Escandon agreed with the French occupants of Mexico to build, as contractor, the section of seventy kilometers, or forty-three miles, between Tejeria and Paso del Macho, receiving therefor \$2,000,000. This was afterward refunded to the French from the customs entries at Vera Cruz. In September, 1864, Escandon ceded his concession to the Mexican Railway Company, conveying also the contract he had previously made with Smith, Knight & Co., of London, to build the branch line to the City of Puebla, for the sum of \$26,195,600. This concession was approved by the Maximilian government, but was forfeited on the fall of the empire.

Enormously Expensive.

The completed road to the port was inaugurated January 1, 1873, by President Lerdo. On account of the exceptional difficulties the cost of the road was enormous; officially stated it was \$3,373,236, or at present rate of exchange about \$92,000,000 in Mexican money. It was but a road of 263 miles, yet nearly forty years elapsed from the inception of the scheme till its consummation. Of that long period about twenty years saw work, more or less active, conducted on the road, including the weary months and years spent in rebuilding the tracks torn up by contending armies. Such the record of railroad building in Mexico, during war times. Per contra, during times of peace American contractors, Hampson, Smith, Sullivan, Gorsuch and McKenzie, built 2500 miles of road in five years.

The Mexican Railway is of standard gauge, four feet eight inches wide. The road rises 6412 feet in 53.9 miles, with a maximum grade of 4 per cent., and an average of 2½ per cent., with 325 feet curves, radius 17 deg. 46 min., and there are in the wonderful mountain division, which is solely equalled by the Meigs railroad in the Andes, sixteen tunnels. The more modern Inter-oceanic Railroad rises to a summit one foot lower than the Mexican on a 2 per cent. grade instead of a 4 per cent.

In February, 1901, this old railroad took a forward step by putting on a night train, with sleepers, to Vera Cruz. The big sixty-foot Pullmans took the curves easily and safely. The heavy trains take as naturally to the splendid roadbed as though they had always ridden there. New trains of ten cars, each seventy-two feet long, make the run by night. This new equipment is from Pittsburgh, including 100-ton locomotives. On the return trips the task is different; the hauls are by sections,

made from Esperanza to Orizaba, on an push car made at the railway shops at Orizaba. There have been made by railroad men on push cars, in the Tamasopo Cañon, on the Mexican Central, sixty kilometers long, but it is doubtful whether a run as long, and as dangerous has ever been attempted in Mexico as that made by Mr. Muir and his party. He knows every foot of the road, and he took the brakes. He often makes the run, but seldom had the car well weighted, for there was no load. Esperanza is 8044 feet above sea level, the real racing commenced after leaving the station, the jumping-off place of the Mexican Central. It is a drop of 3000 feet to the levels of Malinalco. The car went by gravity alone, and at first the descent was moderate, but soon the little vehicle was in an arrow along the rails. Ten minutes after leaving the station and mist settled over the great mountain range and the track itself were so enveloped that they could not see more than twenty feet ahead. As the cloud curtain crept over the timbers, the villages 3000 feet below the tracks, the houses that looked like toys, were blotted out. The party thus missed one of the most superb views on the American continent, the valley of Malinalco, an everlasting girdle of mighty mountains. The sound save the clicking of the little car wheels, came from the shoulder of the declivity, where bridges that hung high in air over the valley, and the party could feel the

years after the opening of the first English railway from Manchester to Liverpool. The Americans had antedated the British by ten years, in the construction of their first road at Quincy, Mass., and a few months later (July 4, 1827,) the first railroad, properly so called, the Baltimore and Ohio, laid its corner-stone. The Mexican railway era was, therefore, nearly coeval with that in the United States and in England. Mexico was, however, torn with revolution. Spain had just completed by failure its second attempt to reconquer Mexico, and Santa Anna was still in the political ring. Conservatives and Liberals were engaged in civil war, which lasted brokenly until the climax of clerical intervention under Maximilian. The Mexican government, however, was anxious to open railroad communication with the port of Vera Cruz, and gave a concession to Francisco Arrillaga of that port city, to construct the road to the Mexican capital. This grant was canceled later, in 1838. Between May, 1842, and September, 1857, about seven miles of railroad were built from Vera Cruz to San Juan, at a cost of \$110,000 per kilometer, the revolutionists, on both sides, tearing up the rails at every opportunity. The second concession lapsed by reason of the difficulties, delays and dangers that beset construction. In 1855 Rosso Brothers obtained a concession to build inland from San Juan, and simultaneously work was commenced on the section from Mexico City to Guadalupe, the first work being done by a New Yorker, Maj. Robert B. Gorsuch, a distinguished engineer, who still

PORT-WORKS OF VERA CRUZ.

DESIGNED AND SUPERINTENDED BY S. PEARSON & SON
(LTD.) CONTRACTORS.

VERA CRUZ, a town of 100,000 inhabitants, is situated on the Gulf of Mexico, 100 miles from the mouth of the Gulf. The town is built on a hill, and the port is a natural harbor. The port-works were an undertaking that required the services of a firm of engineers and architects, and the firm of S. Pearson & Son was chosen for the purpose. The works were completed in 1902, and the port is now one of the most important in Mexico.

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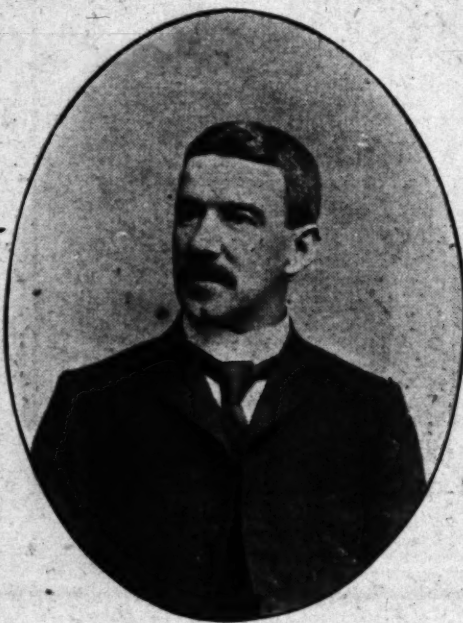
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SIR WEETMAN PEARSON.

during attacks of manifold enemies led the Spanish government to erect the great fort of San Juan de Ulua, known as the Gibraltar of New Spain. This work was commenced in 1582 and finished in 1628, but history is silent as to how many millions it cost. The story goes that Charles V once visited the seacoast in distant Spain and gazed on the Atlantic. When a courtier asked him at what he was looking, the King replied: "I am looking for San Juan de Ulua; it has cost so much it should be big enough by this time to be seen across the sea."

The Vera Cruz port-works, commenced in 1895 and com-



JOHN B. BODY.

pleted in 1902, are a lasting monument to the thorough and conscientious labors of the great builders.

The Vera Cruz Sanitary Works.

In 1765, the municipality of Vera Cruz commenced to pave the city, completing it eleven years later, and in April, 1777, it was for the first time lighted by lanterns at each street crossing. Fires used to be destructive at Vera Cruz, as the buildings were mostly wood, but about the middle of the last century almost all the town had been rebuilt of stone or coral limestone.

In 1712, Vera Cruz received her final visit from pirates,



ALOFT ON TITAN CRANE—TEN TONS OF ROCK READY TO DUMP.

who entered the city, but were forced out by gunfire from the Castle.

In 1748 the town was walled in, and there were seven gates fronting on land and sea. These walls remained until a few years ago.

The waterworks system, once in operation, leaves the machinery free which had been installed for the pumping of the sewage out to the sea, in order to complete the sewerage system of that port city.

The water plant has been built on the river which empties into the Gulf at Vera Cruz, and on a hill, about six kilometers from the city, has been established the filtration plant.

The sanitary works at Vera Cruz are dual in their conception, including the sewerage and the water plant, for both of which S. Pearson & Son hold the contracts. The projects for both were designed by William Fox, M.I.C.E., London, one of the most famous sanitary engineers of England, who visited Vera Cruz in November, 1898, for the purpose of studying the conditions.

Pure drinking water is obtained by pumping from the Jamapa River, with filters and settling beds at Tejar, about fourteen kilometers from Vera Cruz, to a distributing reservoir at Medano del Ferro, a point forty meters above Vera Cruz, whence it is to be run by gravitation to the city, affording a supply of 225 liters per capita per day for 60,000 people, or double the present population.

The improved sewerage system is what is known as the separate water-carrying system, involving the laying of a main stretching from the southeast outskirts of the city to the pumping station, the secondary sewers branching off from the city end of the main sewer and ramifying to the different inhabited portions of the city's site, together making a total length of 55 kilometers. The main sewer has been practically constructed.

Vera Cruz as a Port.

Vera Cruz is indisputably the first port of the republic. The following table shows the number of vessels which entered the port during the fiscal year 1900-1901, with their registered tonnage, the metric tonnage of their cargoes and number of packages.

	No. of vessels.	Reg. tonnage.	Metric tonnage of cargoes.	No. of packages.
German.....	31	74,748	25,066	277,075
American.....	85	232,632	67,695	784,574
Spanish.....	46	184,702	45,957	229,450
French.....	12	64,029	7,802	95,841
English.....	97	265,875	146,023	854,699
Italian.....	1	425	177	262,659
Mexican.....	8	4,811	2,467	32,778
Norwegian.....	55	85,655	59,343	229,988
Swedish.....	2	267	164	22,019
Portuguese.....	1	554	736	12,735
Total.....	338	913,698	355,939	2,982,809

The following table shows the value of foreign imports into Vera Cruz during 1900-1901, according to continents from which they came, with the invoice value of the goods converted into Mexican dollars, according to the table of equivalents in the customhouse ordinance:

America	5,542,319
Europe	16,714,478
Asia	77,241
Africa	15,750
Total.....	22,349,788

The exports through the port of Vera Cruz during the fiscal year 1900-1901 (invoice value) were as follows:

To Germany	\$ 2,424,510
To Belgium	588,881
To Spain	1,087,803
To United States	7,778,128
To France	1,672,238
To England	6,651,048
To other nations	1,851,263
Total	\$21,954,876

The following tables show the quantities of merchandise entering and leaving Vera Cruz by all routes during the fiscal year 1900-1901:

ENTERING.		LEAVING.	
Importation	Metric tons.	Exportation	Metric tons.
Coastwise trade	26,491	Coastwise trade	31,533
By rail	264,559	Railway	272,204
Total	291,050	Total	303,737

Consequently nearly a million metric tons of merchandise were handled at Vera Cruz during the fiscal year 1900-1901. While the customhouse import duties at Vera Cruz, during 1900-1901, amounted to \$10,986,183, those at Tampico were \$4,056,236, Laredo, \$2,397,410 Ciudad Juarez, \$1,697,656.

Vera Cruz is eminently a lively city. It is awake at night, like Havana. The character of the people is hospitable. The prevalence of tropical conditions make it a most interesting place to visit, and some day it will be even more of a resort than it is today, for it is easier to reach Vera Cruz now than it used to be, as four important railways at present operate into Vera Cruz, the



IN THE HARBOR.

Mexican (Vera Cruz), the Interoceanic, the Alvarado, as well as the Vera Cruz and Pacific, recently completed.

Vera Cruz Railway.

The Vera Cruz Railway was built in the usually substantial manner in which Englishmen build railroads. The concession was registered in 1864. It has a length of 321 miles, which cost over \$8,000,000 to build, representing an outlay of over \$25,000 per mile. With an outlay of nearly \$8,000,000, the net income of the company, in pounds sterling, in 1902, amounted to only \$175,000, representing returns of less than 2 1/2 per cent. from the total capital outlay. The severe depreciation in silver is, of course, greatly responsible for these results.

The Isthmus Railway.

From a strategic and commercial viewpoint, the reconstruction of this railway (the National Railway of Tehuantepec) and the harbor improvements at Coahuila and Salina Cruz, as undertaken by S. Pearson & Son, is the most important piece of governmental work undertaken by any individual firm in Mexico. This work is going safely forward in the combination contract between

the Mexican government and the great English contracting firm. Conditions governing railway construction on the isthmus are of the severest kind, but the contractors hope to have the road and harbors in good working order in two to three years' time.

The Tehuantepec Isthmus Railway was fourteen years in building under the old-time conditions, and cost during that time about \$10,000,000, although but 192 miles in length. Its great cost was due to the fact that on the Gulf side the land half-way across the isthmus is very

the Coatzacoalcos and the Panuco, and the second-named is probably the largest. It has its head-waters in the low spur of the Sierra Madre, within fifty or sixty miles of the Pacific Ocean. A sandbar that was of apparently permanent formation had previously prevented ships from entering the Coatzacoalcos River, and the design of the contractors is to dredge that bar and carry out into the deep part of the Gulf two breakwaters, so as to create a clean and artificial mouth for the harbor. The work contemplated at Coatzacoalcos is of a very solid

and substantial character, as is to be seen in the plans adapted for extensive wharfage and harbor extension across the splendid harbor. The construction of the breakwaters, which means an open harbor maintained, will bring about the completion of the project that the depth of water will be made about thirty-five feet at low tide. At Salina Cruz on the Pacific, where the harbor is being constructed, a breakwater is being formed by means of concrete blocks, each weighing forty tons, and is being excavated from the sea. The concrete blocks are made by electric power, and are the second of its size in operation, and was especially designed for the breakwater at Vera Cruz by the company. At Salina Cruz the company has excavated tons of rock per month, which are then slipped into the water out of sight, but the sea wall. It had been until recently the rock of sufficient size for this work, and resorted to the substitute of making blocks. These blocks run in weight from ten tons, and are handled by a giant crane, which is 400 tons, and its radius of action is thirty-six tons at a radius of seventy feet. The cost of one of these Goliaths is \$100,000, and the company have two of these enormous cranes at Salina Cruz.

The two breakwaters that are being formed, when completed, the sea harbor. The west jetty will be 300 feet long, and the eastern jetty 200 feet long. They run out to sea in a line, leaving an entrance about 100 feet wide. The outer harbor will have a uniform depth of ten feet. Both breakwaters will have a width of fourteen meters (45 feet) surmounted by a wall two meters high and six feet wide. The inner harbor, when completed, will be one kilometer (5-3 of a mile) long, and will average ten meters or thirty-three feet. The outer harbor and the inner is a great sea wall, the outer part of which is stone and rubble over twenty-five feet high, while the face of the inner harbor is a wall of concrete caissons sunk to a depth of ten feet and running a whole kilometer in length, leaving space left for the entrance. It is at least 70,000 tons of Portland cement will be used in the outer wall alone.

After the breakwaters and the sea wall, the next piece of work will be the dredging, which is to be the inner harbor project. The magnitude of this undertaking may be judged by the fact that this basin is to be 100 feet long, 700 feet wide and 32 feet deep, and is to be dredged by artificial means. Special work is now under construction in the harbor, and they will be the largest in the world. The less important will be the deepening of the harbor to a uniform depth of ten meters or thirty-three feet. The total range of the tide at this port is 10 feet. From 1300 to 1500 men are being employed in the works, and the best wages are paid by the government. The average peon wages are 10 cents a day.

The old town of Salina Cruz, which was a few rude huts of palm and cane, has been metamorphosed into a modern city of importance. It is being built higher from the site of the old pueblo, Salina Cruz, to be one of the most important harbors on the Coast. The streets of the new town are water mains and sewers are being put in. The houses of substantial character are being built. The town has at present a population of 10,000, rounded as it is by a virgin country of great fertility, possessed of an equable climate, the western terminus of the only practical interoceanic communication on the western coast. This port must keep pace with the development of the future. It is not only the Pacific coast, but the Tehuantepec route, but it is the objective of the Pan-American railway, which is to be built from Salina Cruz to Guatemala. Salina Cruz will be the most favorable seaport on the Pacific for the American ports.

It is a curious geographical fact that the town of Salina Cruz, which is the western terminus of the only practical interoceanic communication on the western coast, is situated on a low, sandy beach, and is surrounded by a low wall of concrete caissons sunk to a depth of ten feet and running a whole kilometer in length, leaving space left for the entrance. It is at least 70,000 tons of Portland cement will be used in the outer wall alone.

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IN THE HARBOR OF SALINA CRUZ.

marshy and treacherous, something like the land around the Chagres River on the Isthmus of Panama; and if extraordinary care had not been taken and great expense incurred, railroad construction would have disappeared as fast as it was effected. The plans of the concessionaires contemplate the handling of an immense traffic most expeditiously and at a low tariff. For the cost of this, the Mexican government contributes, free of interest, \$5,000,000 Mexican money, and for the additional rolling stock, working equipment and haulage facilities, the government and the contractors provide for amounts to be furnished as required. The original idea was to have the port work completed by May, 1903, but that has been impossible. The whole of the roadbed of the railroad is being overhauled, leveled where necessary, and rebanked at sections to afford security, so that when completed the track will be as even and smooth-running as any line in existence. It is a single-line track, and is being relaid throughout with the heaviest steel rails (80 pound.) The bridges formerly used are being demolished and modern steel structures built in their stead. Owing to the possibility of seismic disturbances, the bridges are being built principally with steel girders. The spans for the most part are about 85 feet, but in one or two cases they rise to 100-foot spans, and in one instance to 110 feet. The girders are supported upon steel caissons sunk into the bed of the river and filled with concrete, thus securing a solid and rigid foundation. The bridges are of sufficient strength to carry a load of twenty tons per axle.

The railway that is being built on the isthmus is of more than mere sectional importance; it rises to the dignity of an international highway. Immense distances are saved between New York and San Francisco and the East via the Mexican isthmus, while the loss of time in transit is insignificant as compared with the time saved by using the Mexican route as against the two southern routes. A cargo can be transferred and reloaded from shipside to shipside in twenty-four hours, even using the railway. The route via Tehuantepec is shorter for traffic between New York and San Francisco by fifteen hundred miles than the Panama Isthmus route, and the route to China from important foreign ports is shorter by seven hundred miles than via the Suez Canal. The only break in the Sierra Madre Mountains from Guaymas to Panama, a distance of 2000 miles, occurs at Tehuantepec.

The maximum altitude of the isthmus is a trifle under 800 feet above sea level. Besides arranging for the conversion of the national foreign debt from 6 to 5 per cent. securities, Finance Minister Limantour, while in Berlin in 1899, brought to a satisfactory issue the negotiations with the bondholders of the Tehuantepec Railway, to exchange the new 5 per cent. bonds for their holdings secured by a \$3,000,000 mortgage on the isthmian route—an arrangement by which the road became free from mortgage or lien of any class, and once more at the disposal of the Mexican government.

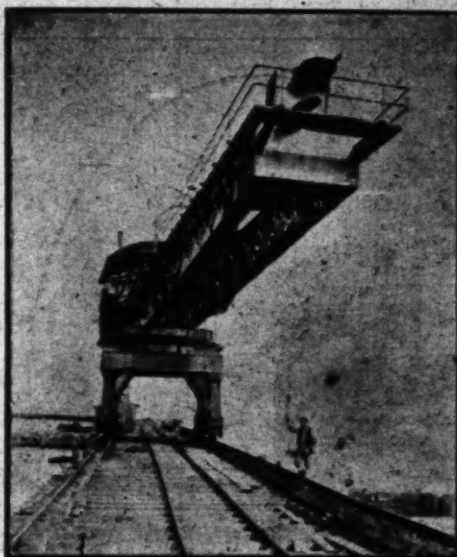
Long before the days of Humboldt the narrowing of the American continent in order to accommodate ship traffic had drawn the eyes of the world to the Isthmus of Tehuantepec. Although the surveys demonstrated the impracticability of a ship canal, they showed the feasibility of a railway.

While the contractors seem sanguine of complete rehabilitation of the Isthmus railway and the harbor improvements of Coatzacoalcos and Salina Cruz, within two or three years, many people are inclined to believe that such is the enormous extent of the work that it can hardly be completed before five years so as to become commercially valuable as a crossing for the world's trade. It is obvious that a point like the Isthmus of Tehuantepec which can be reached from the southern heel of South America in the same time that it now takes to go southward to Panama, is destined to attract a large portion of the world's commercial intercourse between Europe and Asia, as well as western ports of the three Americas.

Port Terminals.

The most important part of the undertaking in connection with rehabilitation of the Tehuantepec Isthmus route is the creation of dock facilities and harbor accommodations at the terminal points of the line: Salina Cruz on the Pacific and Coatzacoalcos on the Gulf.

The harbor works at Coatzacoalcos are designed to create a safe, ample and perfect roadstead at that point. There are three large rivers in the State of Vera Cruz, all navigable for long distances inland—the Papaloapan,



UNDER GIANT CRANE.



ROMERO OLAS DEL ESTE

EAST BREAKWATER, SALINA CRUZ.

character, so as to insure a constant flow of water from the sea, the construction of a breakwater, and the establishment of a regular service direct from Liverpool to Manzanillo as soon as the dock accommodations are completed.

Drainage of the Valley of Mexico.

Another large undertaking, carried to successful issue by Pearson & Son, was the drainage canal in connection with the drainage system of the Valley of Mexico. This work is part of an enterprise that had hung fire for many years, for the earliest Spanish occupants of the valley had begun to take steps for that work, which, however, was not undertaken in earnest until soon after the accession of President Diaz.

The drainage system includes the grand canal, the

waters and the sea wall, the work will be the dredging of the inner harbor proper. An undertaking may be gained at this basin is to be nearly 100 feet deep, all of which will be accomplished by special means. Special dredges under construction in England will be the largest in the world. It will be the deepening of the water to a depth of ten meters of water at low tide at this port is not more than 1500 yds. are being employed. The average wages are paid by the day, but the average wages are \$1.25 per day for Salina Cruz, which formerly was a town of palm and cane, is now a modern city befitting its name. It is being built higher up the hill than the old pueblo. Salina Cruz is one of the most important harbors on the Pacific coast, and the new town are being put in, and the character are being changed. A population of about 10,000, a virgin country of unsurpassed beauty, and an equable climate, the only practical communication on the western coast of Mexico, but it is the objective point of the Pacific terminus of the Pan-American railway, and the new town will be of importance as a port on the Pacific north of Salina Cruz.

us geographical fact that the

and the outlet. The canal, or portion constructed by Pearson & Son, commences at the point at the Salina Cruz station where the sewer formation is finished, and runs eastward past Guadalupe, then northwest to the bottom lands of Xaltocan and Zumpango, on the Gulf of Mexico. The entire distance is forty-seven kilometers and 127 meters. The levels are predicated to the Colimar Stone, when it was incised in the canal walls. The depth at San Lazaro is 5 meters, 75 centimeters, and at the other end 21 meters and 28 centimeters, with a dip of 1.57 centimeters per kilometer. The cost of this work was \$30,000,000 gold.

The Firm of S. Pearson & Co.

The firm of S. Pearson & Son is about sixty years old. They have their main office at No. 10 Victoria Street, London, opposite the House of Parliament. The old name of the firm was S. Pearson & Son. Upon the death of the founder, the Pearson business was incorporated under the name of S. Pearson & Son (Ltd.) as now existing. The capital is about £1,000,000, and Sir William Pearson is president and the largest stockholder. He is a baronet, a member of Parliament, and of the age. The firm has done some big contracts all around the globe, including the building of the tunnel under the Thames River in England, and the largest piece of work. They are also now building a harbor in England, a contract amounting to \$100,000,000 gold, the largest artificial harbor in the world. They also built the big docks at Halifax, Nova Scotia, and are also building a railroad in Tientsin, China, and the Malta docks to cost \$25,000,000.

The republic of Mexico their contracts run up to the sum of \$127,000,000 silver, distributed as follows: Salina Cruz, \$35,000,000; Coatzacoalcas, \$15,000,000; Vera Cruz, \$10,000,000; Vera Cruz port works, \$10,000,000; Vera Cruz drainage and water works, \$7,000,000; drainage canal of the Valley of Mexico, \$20,000,000. Their operations in this country come fourteen years, and are now working about four thousand men on their various enterprises.

Other honorable recognition of their undertaking is the gold medals received at Paris for plans of the works at Vera Cruz, of which there were three, and the firm, one for Sir William Pearson, and one for John Body.

Sir William Pearson has many other private enterprises in Mexico, including mines at El Oro, big tracts of land in the States of Chiapas and Vera Cruz, and oil fields in the States. He is also president of the Vera Cruz Mexico Mill Company, and president of the Vera Cruz Mexico Railways Ltd. Sir William is one of the most famous contractors in the world. The fact that he has taken hold of contracting enterprises in Mexico that will round out about \$120,000,000, in a working term of less than twenty years, is evidence that Mexico attracts the finest engineering and constructive genius that can be found in the world.

John Body is a civil engineer by training, a member of the Institute of Civil Engineers in both the United Kingdom and England. He was employed on the Milford Haven in Wales, which he left to go with Sir William Pearson years ago, at the time of his first Mexican work. Mr. Body is 35 years of age. The whole work of the drainage of the great river of S. Pearson & Son in Mexico, are under the direct personal supervision of Mr. Body.

Mr. Body is in charge of the Mexico City office, and Robert Adam, engineer next in charge to Mr. Body, is the traveling engineer for the company, visiting all its works.

MANZANILLO HARBOR WORKS

AND COL. EDGAR K. SMOOT, CONCESSIONAIRE.

BETWEEN the unmelting snows of Orizaba and the guava groves of Colima are found degrees in temperature from 20 to 100, and all the differences between Russia and Southern Italy. Both the volcanoes of Orizaba and Colima are located near the same parallel of latitude, and yet the former is 20 deg. east of Mexico City and the latter 27 deg. west of it. Both lie in the mid-continent of Mexico, nearly 5 deg. below the Tropic of Cancer. While the volcano of Orizaba sentinels the eastern coast of this country, that of Colima guards the western coast. Orizaba is the king of mountains on the North American continent, while Colima raises its gray head 4300 meters above sea level. Round the base of lofty Orizaba winds the oldest railroad in Mexico (the Vera Cruz Railway,) while among the tropical valleys that nestle about the burning Colima is heard the unwonted music of railway construction, pushing toward the Pacific one of the newest of Mexican lines to perfect the interoceanic communication of the great Mexican Central system between Tampico on the Gulf and Manzanillo on the Pacific.

In order to make available the port of Manzanillo by freeing it from the scourge of yellow fever and creating a protected harbor, the Mexican government in 1899 made a contract with Col. Edgar K. Smoot of Washington,

soon by canal to the ocean was destined to aid in this purifying work.

In 1899 the engineers commenced the surveys, and work followed soon after. To facilitate the building of the sea wall, a trestle 3000 feet in length was constructed into the harbor, which would also reclaim a large amount of drowned land. The derrick used in the works was built in San Francisco, with a handling capacity of fifty tons, 600,000 tons of granite being used. The concessionaire built a railway line of nine kilometers to Colima, where exists a hill or half cone of blue granite; on the top of the hill he erected a tower with cable traction to handle the huge blocks and transfer them over the trestle for the sea wall. Three locomotives and 150 cars were used for this work. The breakwater runs into the water with sixty feet of depth, and at that point it will have a width of 315 feet. The work has advanced so far that a sea wall will be completed some time next spring, when Mexico will be accommodated.

Col. Smoot thinks that the work, aside from the sea wall, will be completed some time next spring, when Mexico will have another splendid harbor. The Mexican harbors on the Pacific are not only of local importance, but of great international import. The route via Salina Cruz, when its harbor shall have been completed, will be the best ocean-and-rail route, for it is 2400 miles shorter between American ports and San Francisco than is the proposed Panama route. Via Topolobampo, when railroad connections with it shall have been secured, will be the best all-rail route as between the Middle West of the United States and the Pacific Ocean, because the Kansas, Mexico and Orient line, terminating at Topolobampo, will be 1000 miles shorter than the shortest railway route between San Francisco and Kansas City, the center of the Middle West.

At the close of its report to the United States Congress, the Nicaragua Canal Commission admitted that a railway from the United States to the Pacific, running through Northern Mexico, would more than offset the advantages secured to commerce even by the Nicaragua route.

The harbor of Manzanillo is eleven kilometers long by eight kilometers in width, and has a frontage of five kilometers. It resembles the San Francisco harbor, but is without the disadvantages of that Californian port, for it has no reefs, sand bars or adverse currents. It is protected west and south by ranges of hills, and the artificial breakwater will further protect it from the western sea. The entrance at no point is narrower than two kilometers, and yet there is space enough at the north end of the harbor for wind to impel sailing vessels to the open. When completed the harbor will be large enough to accommodate 100 vessels, and the minimum depth will be at low water twenty-four feet. The concentric currents will keep the harbor clear after the excavations.

The expenditure in this work has been enormous on account of the impossibility of getting supplies overland via Tuxpam. Therefore the material had to be brought from San Francisco, and even with his boat running weekly, Col. Smoot has often had to wait weeks for his supplies. He is working now about five hundred men, but often has had difficulty in securing labor. He is of the opinion that immigration is as necessary to the development of Mexico as it has been to that of the United States; therefore he favors the bringing in of Chinese through the China Commercial Steamship Company. This company, together with the Mexican Central Railway Company, have agreed to make Manzanillo the port of meeting on the Pacific Coast. In the transformation of Mexico, now made possible by the increase in railway lines and harbor improvements, Col. Smoot is also of the opinion that the agricultural exports of this country will, in the near future, exceed its mineral exports one hundredfold. In this brilliant future the port of Manzanillo must participate, located as it is midway on the Pacific Coast of Mexico and along the same parallel of latitude that pierces the center of the continent, including Mexico City. The work undertaken by Col. Smoot is still more interesting because of the somewhat recent purchase by the Mexican Central Railway of the Mexican National's railway branch from Colima to Manzanillo, and its own connection therewith via Guadalajara and Zamora, which, when completed, will make an all-rail route from New York to the Pacific via the City of Mexico, as well as a transcontinental route from Tampico on the Gulf to Manzanillo on the Pacific. The Mexican government has apportioned the sum of \$5,432,700 to the contractor as the price for the harbor improvements at Manzanillo.



East Breakwater

TITAN CRANE HANDLING 50-TON BLOCK OF CONCRETE.

D. C., to create harbor improvements at Manzanillo, which is half way between Guaymas and Acapulco. This port is located in the little State of Colima, one of the smallest in the Mexican Union, but with wonderful possibilities. The State of Colima forms a triangle of 5837 square kilometers, and with a coast line of 160 kilometers. The population of the State is barely 100,000, yet the agricultural production alone in 1897 was valued at \$1,412,373, of which the sugar production was \$170,000, the corn \$318,175, the indigo, \$25,500. Besides the State produces rice, indigo, cacao, coffee, tobacco, etc. There is not much mining in Colima, the State being given over to agriculture and cattle industries. The only railway is a line of ninety-five kilometers, of the Mexican National, connecting the port of Manzanillo with the city of Colima, and construction has commenced on the Mexican Central branch from Guadalajara and Zamora to Colima. The climate in Colima is ideal; although it is 10 deg. south of Galveston, Tex., it is never as hot as at Galveston, and there never is any frost in that country. The hottest season is during September and October, although it is not uncomfortable then, and during the coldest weather, which is in February, the thermometer never drops below 50 deg. Fahr.

To place this productive section of the republic in closer touch with the outside world, as well as to establish a living link between the Pacific Coast and the Mexican capital, actuated the government to undertake the harbor improvements at Manzanillo, leading to the contract with Col. Smoot. He has had long experience in harbor works, his last contract being for those at Galveston. He is a member of the American Society of Civil Engineers, and has been in Mexico about eight years. His offices are at Puente Alvarado 12, Mexico. All that scientific engineering, to the least and last detail, as well as conscientious work, could accomplish in this undertaking, has characterized Col. Smoot's efforts. During the fever epidemic at Mazatlan there was some trouble apprehended as to the spread of the disease to Manzanillo to aggravate the local conditions there, but this was admirably handled by the official system of quarantine. In every way the Mexican government has aided the concessionaire, the officials of the Department of Public Improvements have given him every facility in their power. The Government Inspector, Col. Carlos Ramirez, who is one of the brightest engineers in this country, has invariably reported in a favorable manner upon the progress of this work.

Under the government's concession Col. Smoot was required to construct the harbor improvements according to plans and specifications approved by the department, begin work six months after the date of approval of the plans, and finish four years from date of contract, the work to be payable in cash or 5 per cent. bonds of the interior redeemable debt, and to call with it, under article 160 of the Railway Law, certain subsidies granted to 800 kilometers of unconstructed railway from San Quintin to Rio Colorado and other points in Lower California, such subsidies to be credited to the harbor works.

The harbor improvements included the following: A breakwater to shield the port from the west; a wall, or dyke, parallel to the seashore; the deepening of the harbor to 8.5 meters; a canal introducing and circulating sea water in the northern portion of the Cuyutlan lagoon; a dyke to separate this part from the southern end of the lake, where are the salt deposits; the breakwater to consist of stone covered with granite blocks of fifty tons weight. There were to be also wharves to accommodate at least thirty sea-going ships. The sanitation of Manzanillo was a point much desired by the Mexican government, as it had been subject to yellow fever largely on account of the two lagoons back of the town, where the water during the summer became so brackish that even the fish died there. The drainage of the San Pedro la



HON. GEORGE FULLER.

[Authorized Announcement.]

AMERICANS or other foreigners engaging in mining, or having other property interests in Mexico, would do well to engage the services of a reliable attorney, familiar with the mining and land laws of the country, to examine titles, letters patent, deeds of conveyance, etc., and to give legal advice, generally, in the transaction of business in the Mexican republic. Hon. George Fuller of San Diego, Cal., is such a lawyer, and for the last fifteen years has made a specialty of the study of Mexican mining laws, upon which subject he is a recognized authority on both sides of the international border. Mr. Fuller is one of the most prominent members of the San Diego bar, and indeed of the bar of the State of California. He formerly was on the bench of the Superior Court of San Diego county; and before that was for years attorney for the International Company of Mexico, and is thoroughly familiar with the affairs of Lower California and the laws of Mexico generally.

MITCHELL MINING COMPANY.

THE first Americans to penetrate the terra incognita of Guerrero, hidden from time immemorial among the hitherto impenetrable Sierra del Sur, were Californians from Los Angeles and San Francisco. This peaceful invasion was effected nearly two years ago by George Mitchell of Los Angeles and his associates in the venture since designated as the Mitchell Mining Company. An old American mining man, John Dowling, had for months been quietly prospecting among the mountainous sections of the District of Bravos. Following the instinct so well defined in mining men, and which had been emphasized in Dowling by his prospecting life of nearly twenty years, the old-timer, who, by the way, is one of the most highly-respected and reliable mining men in Mexico, finally located copper, whole mountains of copper, in the untraveled, and up to that time, unexplored District of Bravos, a district accentuated by lofty peaks of the Mexican Cordillera, valleys that are exuberant in tropical output, threaded with springs, streams and mountain torrents. Guerrero has been a "paradise lost" of rare beauty and productiveness, whose amazing possibilities are now being discovered. The State of Guerrero, although as yet undeveloped, is exceedingly rich in agricultural products.

The grain crop in 1902 was valued at	\$2,500,000
The rice crop	100,000
Sugar and molasses crop	500,000
Cane brandy	100,000
Textile fibre	25,000
Cotton	1,000,000
Cacao	10,000
Coffee	25,000
Tobacco	30,000
Besides beans, potatoes, chiles, etc., about.....	150,000

But the State of Guerrero is considered preeminently a mineral State. As far back as 1897 the extraction of minerals from that State was calculated by the Department of Encouragement at 20,000,000 kilograms, valued at \$500,000, and in that year 700 men were engaged in the mines, of which there were two gold mines, three of gold and silver, one of gold and copper, six of silver, one of silver and copper, one of lead, one of iron and one of quicksilver, the latter the property of Manuel Romero Rubio, father-in-law of President Diaz. The mineral output of Guerrero, it is calculated, has increased at least fourfold since that date. As yet there is but one railroad that has had the hardihood to attempt to dominate the topographical situation and enter the territory of Guerrero, and that is the Cuernavaca and Pacific, now a part of the Mexican Central Railroad. The State has about

City, and John Dowling of this city. The capital under organization was \$10,000, and the company is operated by the Mitchell Mining Company of Arizona, a concern capitalized in \$5,000,000, United States currency, and which is domiciled at Prescott, Arizona, with offices at No. 522 Broadway Building, Los Angeles, and No. 52 Wall street, New York.

Mr. Mitchell, who is a typical American mining man, brimful of resources, successful because plucky, ready



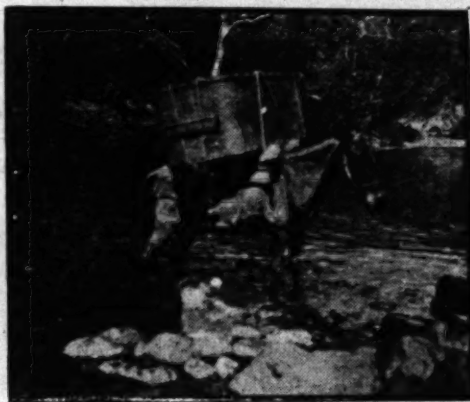
GEORGE MITCHELL, PRESIDENT MITCHELL MINING COMPANY.

to take advantage of every opportunity for the legitimate investment of his money, without worry as to the outcome, has been successful in other portions of Mexico. Mr. Mitchell is a man 39 years of age, born at Swansea, Wales, but a naturalized American. He is deliberate, thorough, energetic, and a tremendous worker, and all that he touches turns to success on account of those admirable qualities. Before coming to the United States, as a very young man, he had experience in mining in Wales. Upon reaching his adopted country he went to Butte, Montana, where he became interested in the smelting of copper ores, a line of mining operations to which he has since devoted all of his time and attention. He is considered one of the finest metallurgical experts in the world. While at Butte, impressed with the enormous magnitude of copper operations at the Anaconda and other Montana mines, he began to develop the big liberal line of thought which has since conducted him through numerous successful ventures. He went thence to Jerome, Arizona, where he became associated with the United Verde, owned by Senator William A. Clark—a mine whose daily copper output now amounts in gold to \$40,000. It is thought to be the richest copper mine in the world. Mr. Mitchell had charge of all the smelting operations in the United Verde up to the year 1898, and

solved the problem of smelting the ore, and from that moment the venture was assured. Mr. Mitchell, who has since then organized the Cobre Grande Copper Company, a great deal of development work has been done, and with success a 200-ton smelter was first success obtained in the famous Cobre Grande area. One year afterwards the Cobre Grande properties with these and other mines, and thus was formed what has since become the Mitchell Mining Company. The company has since then been installed at Cananea within two miles of the big mining venture, culminating in the big mining success of the Greene Consolidated. Mr. Mitchell to reach out in other directions, up some other Sonora properties, and then he moved to Los Angeles, where he is now a permanent resident.

That such a man, with such a record, and time and money and personal attention to the copper possibilities of Guerrero, would have within its limits possibilities in the mining that are of exceptional merit, is a thing of electricity, and it is little wonder that mining magnates like J. B. Haggin of the Daly of Montana (since deceased), Senator of Arizona, George Mitchell of Los Angeles, John D. Rockefeller, and the host of other names, should run to copper. Mr. Mitchell, who is now general manager of the Mitchell Mining and Smelting Company, is the largest individual mining proposition in Mexico, and at the same time is making timber propositions and agricultural propositions in the State of Guerrero, a State that is now awakened to the magic touch of enterprise.

The mines of La Dicha Mining and Smelting Company are located about forty-five miles from the pulco, at an altitude of 2500 feet above sea level, covers 1200 pertenencias. Each pertenencia covers 100x100 meters. The side lines of a railroad end lines, therefore mining in Mexico is only within the square covered by a railroad, perpendicularly down for any depth. The mines are located at the foot of the divide of the Sierra Madre del Sur.



ORE CAR BURRO-BACK.

700,000 inhabitants, and the capital is the city of Chilpancingo, located in the District of Bravos, about 220 kilometers in air line from the City of Mexico, a place which in 1855 had 6000 inhabitants and now has about twice that number. It is a quaint old city, located 1193 meters above the sea, and is quite a historic point, for the first Mexican Constitutional Congress met in that city on September 13, 1813, to protest against the Spanish occupation.

The Governor, Señor Augustin Mora, who succeeded Col. Antonio Mercenario, is a very progressive, far-seeing man, who welcomes every legitimate endeavor to better the conditions of his State, and who has always given the glad hand to Americans in his State for the purpose of coaxing into productiveness the neglected agricultural sections as well as the undeveloped mineral belts. The Californians who now control and are developing the largest mining grant in Guerrero, and one of the largest in the republic, namely, Mr. Mitchell and his associates, have always found Gov. Mora disposed to extend to them every facility within the scope of his jurisdiction. They have also met with ready acquiescence and assistance from the mining agent of Bravos District, Señor Rafael Campos, who has dealt with them fairly and promptly. They have always met with hearty cooperation upon the part of the local and State officials, as well as cheerful aid from the Federal Department of Encouragement in the furtherance of their great undertaking.

They were the first Americans to locate in the Bravos District. After the discovery by Mr. Dowling, Mr. Mitchell denounced the mines now operated by La Dicha Mining and Smelting Company. This big proposition is located in the Bravos District, 27 miles from Chilpancingo, and the property shows some signs of old workings, possibly dating back to the time of the Spanish conquistadores. It is a well-known fact that the first Spaniards searched for precious minerals in Mexico in every portion of the Aztec empire. They located gold in Oaxaca, copper in Guerrero, Michoacan and Sinaloa, and even penetrated into United States territory in search of gold and copper. There are traces of their old workings to be found scattered all over the Mexican continent. Even in the State of Guerrero they mined quicksilver about forty miles east of Iguala. The entire State of Guerrero is more or less mineralized, and the section now being developed by La Dicha Mining and Smelting Company is charged principally with copper carrying gold and silver values. The copper in the huge property handled by this company will run from 5 to 75 per cent., black sulphide and calco pyrite, bornite and glance. Gold and silver values which permeate the deposits are yet uncertain, for the development work has not yet gone far enough.

La Dicha Mining and Smelting Company is an organization effected in this country, established under the laws of the Federal District in October, 1902, in order to develop the Guerrero properties taken over by Mitchell in the last of June. The stock of the company is held by the Mitchell Mining Company, with the exception of such part as, under the Mexican mining law, is held for local representation. La Dicha Mining and Smelting Company is composed of George Mitchell of Los Angeles, president; Dr. J. L. Kirkpatrick of Los Angeles, vice-president; E. D. Elson of San Francisco, secretary and treasurer; Walter R. Henney of Washington; Thomas McManus, formerly of Chihuahua and now of Mexico



AGUSTIN MORA, GOVERNOR OF GUERRERO.

when he passed over into Cananea, Sonora, he carried with him this great fund of technical information and experience, which enabled the owners to demonstrate at Cananea one of the greatest mining ventures floated in the world. The Cananea was then a sort of white elephant on the hands of W. C. Greene. At that time Mr. Greene was a ranchman living on the San Pedro River. He had known of the Cananea mines, and had tried for twelve years to work their ores, but without success. Mitchell's technical eye took in the situation and he

slopes down into Southern Mexico, toward the Pacific, and again rises in mountain stream of the State of Guerrero, stand the topographical situation, it may be said, capital of the State of Guerrero is located at a great, rich valley that opens toward, winds around the southern slope of the Madre del Sur, past Ayutla to the coast, situated on the southern slope, toward this wonderful valley. At present, no railway approach to the mines is via Iguala, which is an exquisite spot, located on the Pacific Railway.

All material for the mines has been hauled, two days' mule-back trip to Chilpancingo, and then the route lies for 27 miles winding and wonderful cañon climbing 1000 feet above sea level at Rio Balsas to the mines, a cañon crowded with nature's beauties. At the divide is located the town of Chilpancingo, where petrified remains of 2000 years have been unearthed, and relics of the past. From the crest of Mt. Zumpango the best view is to be had of Chilpancingo Valley. The road to the mines crosses the divide of the Sierra at a point called Burro Mountain, and from this point, which is forty miles from the Pacific, one can see the ocean and feel the sea air. It is a wildly beautiful scene, the music of mountain streams and the quaint villages of the famous Pinto. The lepers, not necessarily, however, of the leprosy type. Their faces are singularly expressive in color. They are otherwise healthy and are an active people. The Spanish are so common with them as their native people when Mr. Mitchell and his friends first discovered the mines, being the first Americans to locate in Mexico, the Pinto women and children, while the men gazed stolidly, but not without interest, at the white men. From the divide on Burro Mountain, 10,000 feet above sea level, to the mines by trail of only six miles, yet the distance 5000 feet, with cliffs above and following the sinuosities of intervening gorges, in all that section of Guerrero are rated with orchids of rich scarlet and colors, parasitical growths clustered there are monkeys and parrots in the quanted localities, and game about the country, in and out among the trees, great wild garden. The air is full of the birds and butterflies of Southern Mexico. There are poisonous insects in the country, as though Mexico had inherited the rest of the world, the curse as it were, of the world.

The mines are located in a charming good climate, and situated as they are

have the full benefit of the sun, and the breeze from the Pacific, which time the company has since then been installed at Cananea within two miles of the big mining venture, culminating in the big mining success of the Greene Consolidated. Mr. Mitchell to reach out in other directions, up some other Sonora properties, and then he moved to Los Angeles, where he is now a permanent resident. That such a man, with such a record, and time and money and personal attention to the copper possibilities of Guerrero, would have within its limits possibilities in the mining that are of exceptional merit, is a thing of electricity, and it is little wonder that mining magnates like J. B. Haggin of the Daly of Montana (since deceased), Senator of Arizona, George Mitchell of Los Angeles, John D. Rockefeller, and the host of other names, should run to copper. Mr. Mitchell, who is now general manager of the Mitchell Mining and Smelting Company, is the largest individual mining proposition in Mexico, and at the same time is making timber propositions and agricultural propositions in the State of Guerrero, a State that is now awakened to the magic touch of enterprise. The mines of La Dicha Mining and Smelting Company are located about forty-five miles from the pulco, at an altitude of 2500 feet above sea level, covers 1200 pertenencias. Each pertenencia covers 100x100 meters. The side lines of a railroad end lines, therefore mining in Mexico is only within the square covered by a railroad, perpendicularly down for any depth. The mines are located at the foot of the divide of the Sierra Madre del Sur.

he same. It is this
and rapid development can be
practical knowledge, keen insight
which characterizes men like him.

Simultaneous with this work at Tampico for the Mexican Central, they constructed for the Mexican Northern Railway.

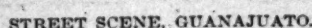
They have signed a contract for the construction of the Mexican Central branch to Colima, and seven kilometers are already graded. This work will cost about \$3,000,000.



HON. GUILLERMO LANDA & Z. ANDON,
Governor of the Federal District.

He is also the representative of the International Railroad, as well as the Isthmus Construction Company, the company that is at present constructing the big public improvements on the Isthmus from Coatzacoalcos on the Gulf Coast to the harbor of Salina Cruz on the west coast, besides being interested in numerous other financial enterprises of note.

Great improvements in the laws relating to the liquor traffic and gambling have been made during the past year.



busy north of the Rio Grande building in the southwest part of the United States. In 1894 they built seventy-six miles in New Mexico from Eddy to Roswell for the Pecos Valley Railway, and more recently from Lordsburg to Clifton and Hampton, and from San Diego to Barstow.

Hampson & Smith do not do things by halves, and so the contract for the entire road when making a contract, including roadbed, laying of tracks, construction of bridge

The street-car systems of the City of Mexico carried 32,000,000 passengers last year.

THE STATE OF CHIAPAS.

ONE of the most highly privileged sections of Mexico is the State of Chiapas, a State which is ably governed by Gen. Rafael Pimentel. It borders on the Republic of Guatemala and on the Pacific Ocean, and for 350 kilometers on the State of Oaxaca, while on the north it has the States of Vera Cruz and Tabasco, and on the northeast those of Campeche and Yucatan. Chiapas is the only Confederate State in the Republic, for it was during the period of the independence a little republic. On September 12, 1824, it was annexed to the republic of Mexico.

It has untold wealth as yet undeveloped, but which some day will be within reach of the civilized world by means of the Pan-American Railway, with its branches. In 1900 the census gave Chiapas 432,000 inhabitants. The private property in 1892 covered 2,591,233 hectares; since that time 500,000 hectares of State lands have been added, making a total of 3,091,233 hectares of lands owned by private parties. In 1892 the value of country property was declared at \$20,049,329; this valuation was used as a basis for taxation, but really was only about a quarter of the real value. Adding the increase since realized, gives a total property valuation of \$100,000,000. There are in the State about 3500 farms, 450,000 head of cattle, 100,000 horses, 1800 donkeys, 5000 mules, 10,000 sheep, 30,000 goats, 100,000 hogs. The State has 3,000,000 coffee plants in bearing, 3,000,000 cacao; 6,000,000 henequen and 3,000,000 rubber plants. The henequen industry is somewhat recent in Chiapas, but in two years the plants will be in bearing, and the rubber will be bearing in two or three years. In the department of Soconusco there are at least 1,000,000 rubber plants almost in bearing condition. Sugar cane is an industry being developed along with the henequen. Chiapas also raises indigo, tobacco, wheat, rice, beans, corn and cotton. Chiapas is already second in the point of export of coffee, having reached an export of 5,000,000 kilograms per annum, or about one-third of the export from the State of Vera Cruz, the leading exporter of that berry. It is expected that Chiapas will soon double her coffee production, and the other agricultural resources will increase correspondingly.

As to natural products in the way of woods, it is as yet impossible to give any definite idea of the wealth of that State, for it abounds in pine and hardwoods for cabinet and construction work, trees of great girth and millions of them.

MEXICAN LAND AND COLONIZATION CO. (LTD.) OF LONDON.

THIS company holds important concessions from the Federal Government and owns several million acres of land in Lower California and Chiapas. In the latter State are some of the richest lands in the republic suitable for coffee, cacao, vanilla and rubber.

Practically all of the large coffee estate in Soconusco, which today produce the finest grades of coffee in Mexico, are planted on land purchased from this company.

The company's representative near the government in Mexico City is the famous jurist Lic. Don Emilio Velasco, and the commercial end in Lower California is handled by J. H. Packard and in Chiapas by O. H. Harrison, the latter being the owner also of several important coffee plantations, as also founder and now Resident Director of La Zacaupa Rubber Plantation Company, having its plantation in Soconusco.

A report has recently been issued by the Department of Agriculture in Washington, as the result of a visit to Soconusco of Mr. O. F. Cook, botanist in charge, investigations in tropical agriculture, and speaks very favorably of this district as being suitable for rubber culture. He was given an opportunity of studying this important branch of agriculture on La Zacaupa, as this plantation has cultivated trees ranging from a few months to 14 years old. We publish two of the pictures taken by Mr. Cook on La Zacaupa, showing old and young trees in cultivation. He makes the statement in his report that "the planted trees on La Zacaupa abundantly demonstrate the practicability of rubber culture."

Ten thousand acres of this plantation were purchased from the Mexican Land and Colonization Company, the remaining eight thousand being an old title issued by the State.

Up to now these lands have not come prominently to the notice of the public, but as soon as the Pan-American Railway is completed it will place them in easy communication with the rest of the republic and there will no doubt be a rush of capital to develop the resources of one of the richest corners of the earth from an agricultural standpoint.

The plantations in this district are the most important to be found in Mexico and are all owned by private individuals. The yearly output of coffee amounts to 70,000 quintals.

Soconusco has always been famous for its cacao and there is an immense field for foreign capital in this industry which so far is only in the hands of local planters.

The port of entry is San Benito and the principal town, Tapachula, has a population of some 6000 people.

The success achieved on La Zacaupa has instigated others in the direction of rubber-planting, notably on Dona

is very similar to the primary except in the smaller size. The specific name alludes to the fact that the milk of the tree flows freely when the bark is cut, so that it can be collected in quantity and coagulated by improved (creaming) methods instead of the rubber being harvested wholly or partly by pulling the "serap" (burchal) from the gashes in which it has dried. Large yields of serap rubber are sometimes reported from wild trees, but the tapping to which they are subjected is very haphazard, and the removal of the rubber from the wounds delays healing and exposes the tree to the attacks of insects, so that the cultural production of serap rubber is not likely to prove profitable.

As rubber cultivation is likely to become a large and lucrative business, it may be of interest to our readers to know something about the conditions on a rubber plantation, and as La Zacaupa is looked upon as the pioneer in Mexico of this new industry its methods and plans are likely to be followed by others.

Included in the eighteen thousand acres which comprise the plantation are about twelve thousand acres of land especially adapted for the cultivation of rubber, with soil of great depth and easily drained.

When the planting was first commenced the land was laid off in five avenues running east and west and crossed by streets running north and south numbered from 1 up. These are 24 feet wide and are kept clean and well drained, the avenues being extended as the planting progresses. The crossings of these streets and avenues form squares containing about 28 acres each, on which are planted some ten thousand rubber trees, this planting affording every facility for the care of the property and quickly ascertaining the number of trees planted.

The administration buildings consist of a large and well-appointed house for the manager and his family, with a well kept patio, or yard, around the house, a sawmill, which is kept busy all the time furnishing material for the new buildings and the necessary lumber for the plantation, long rows of buildings for the laborers, all of these being erected of native woods and by the labor employed.

There is also a large store which furnishes the necessary

THE PAN-AMERICAN RAILWAY.

THAT brainy American, James G. Blaine, and a prophet, but he was not an American. He was a Scotchman, and his head was in the clouds, carrying out a dream; a fully-equipped railway train, traveling for 10,000 miles, crossing the Atlantic and landing near the heel of South America, drifted into prophecy like the shadow of a giant. As everything has its origin in thought, the locomotive, it seems simply necessary to say that it did, and he easily found people who could do his marvelous personality and became co-partners in the gigantic scheme of an international railway from New York to Buenos Aires, passing through the city of Rio de Janeiro. In its incipency the idea was an American one, fifteen years ago it commenced to take shape, and the American Railway, Mexico at that time, was a great railway system, and the south and west had scarcely any railway connections. If Mr. Blaine what such an undertaking would have said he did not know, but that some day the road would be built, and that quarter of a century, for American people, level, even if it has to cross the highest mountain world. It must master every detail in its path, to get close to the heart of the continent of America, who are the proper neighbors and the United States, and who under the shield of the United States are forever protected against any foreign influence with their independence and autonomy. To build a national highway and thus bind, heart to heart, the East and the West, was a necessity in his mind, the city being "the mother of invention," the road would later on develop.

Among others who caught the contagion of the scheme was J. M. Neeland of Los Angeles, who, being in company with other Angelenos and working out the details for the portion of the line to connect the United States via Mexico with



RUBBER TREE 14 MONTHS OLD.

(Castilla Lactiflua.)

Grown from Seed

Zacaupa Rubber Plantation, the Only Plantation in Mexico Producing Rubber in Commercial Quantities from Cultivated Trees.

supplies required, a courthouse, jail, and stables for the animals, making altogether quite a busy village in the very heart of the tropical forest. Under the watchful eye of the superintendent the large number of men employed perform their daily tasks without any friction, each man having his particular work to do and doing it well.

There are now about one and one-half million young trees of various ages growing, and preparations are being made for the planting of over two thousand acres next year. By the time that these trees come into bearing, stations will have been established along the avenues for the collection of the latex, where it will be coagulated under the new formula devised by Mr. Harrison, so that the product of this plantation will be known for its purity and cleanliness.

As everything on La Zacaupa is managed in the most economical and systematic manner, there is no reason to doubt that this plantation will furnish information through its experience and example for others who desire to enter into this business. Before many years have passed there is every reason to believe that the cultivation of rubber will be one of the leading industries of the world.

One of the most enterprising importing houses in the republic is the Mexico Mine and Smelter Supply Company of the City of Mexico, which carries a full line of mine, mill and plantation machinery.

There is a large and growing field in Mexico for all kinds of modern agricultural machinery. The Mexico Mine and Smelter Supply Company of Mexico City is constantly importing large quantities of this class of machinery.

Panama; in other words, the northern end of the Pan-American Railway. The portion of this international communication through the United States is for by the 186,000 miles of American railway operation. The Mexican portion, under the auspices of the Nebraska and California people stepped in between San Geronimo, a station on the Texas and Pacific Railway and the Guatemalan frontier, 100 kilometers in length. From the Mexican frontier to the Isthmus of Panama the distance is 1,000 miles. Even if it takes eight years to build the line to the Isthmus of Panama, that is the time limit of Blaine's dream. To carry out the Pan-American Railway Company was the law of New Jersey in 1902, with a capital of \$100,000,000. The directors of the company are J. M. Neeland and Fremont Everett of New York, Newark and J. M. Neeland of Los Angeles, and officers are Walter Everett, president; J. M. Neeland, manager, and Berthold Baruch, superintendent. The company is in Chicago, and the principal Mexicans interested in Enrique C. Cordero, Governor of Chiapas, a considerable man in the republic. Mr. Cordero is one of the financiers in the world, a man whose untiring labors form a constant inspiration of the Mexican Monetary Commission, a body of the Mexican government. The legal adviser of the Commission is Josequin D. Casassa, a lawyer of immense experience as a financier, also a member of the Mexican Monetary Commission.

While Mexico seems to have only a small part of the undertaking, so as to be on the line



HON. RAFAEL PIMENTEL.

Governor of the State of Chiapas.

Maria, owned by Messrs. Moody, Wright and Quinby of San Francisco. Mr. Virgil Smith, an old Brazilian planter, as also several Mexican planters.

Care has been taken in every case to select suitable lands for rubber, as the proper kind and depth of soil is absolutely necessary for a successful result, and these conditions vary even in a radius of a few miles.

The departmental report indicates that the land suitable for successful rubber planting is much more limited than is generally supposed, but Soconusco is full of these "pockets" of rich soil where rubber grows spontaneously in the forests. Mr. Cook has gone so far as to give a special name to the Soconusco rubber tree in an article appearing in "Science," October 2, 1903, he describes the Soconusco rubber tree as "Castilla Lactiflua" as the following shows:

"The Castilla of the Soconusco district of the State of Chiapas (C. Lactiflua) is peculiar in having the complementary inflorescence flattened and with a broad mouth; it

for the piling and t...
that spikes are dr...
in splendid pine, whic...
square three feet...
into, and but few br...
ending two approaches...
between the low...
and the hills, and at...
cont. After finishing...
coming northward fr...
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and the work there w...
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line from Tonala to...
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The great task ha...
co-operating with

on in Mexico Producing
ated Trees.

Part of a Grove Planted from Seed in 1889, La Zacualpa Rubber Plantation.

investigated a kind of agriculture which has been called "the basis of wealth," and which has lifted the United States to the front rank, is but an infant industry in Mexico, for the accumulated production of this republic is now not over \$400,000,000 per annum. Yet, as compared with little or nothing one-quarter of a century ago, the advance is remarkable. It is beginning to show, and out that Mexico can raise not only all kinds of tropical fruits and grains, but also kinds of fruits cultivated in temperate zones, and the demand is on the increase for agricultural and horticultural lands in Mexico. It is safe to refer much of this demand to the International Land and Colonization Company. This company has acquired 1,000,000 acres of tropical lands in the valleys of the Calamara and Trinidad rivers, on the Isthmus of Tehuantepec, and have sold at least 75,000 acres in that part of the country, including important tropical plantations. Besides its own holdings in fee simple, it controls for sale in different States of the republic about 5,000,000 acres of agricultural, grazing and timber lands. The company has a colonization concession from the Mexican government and among the foothills of the Puebla Sierra.

Nuevas.

ants and a complete system of improvements installed. Probably the most important of these is the fact that the mine is situated in the fourth and fifth ranges of the Sierra Madre Mountains, which are the most fertile and productive in the State of Chihuahua. The mine is situated in the fourth and fifth ranges of the Sierra Madre Mountains, which are the most fertile and productive in the State of Chihuahua. The mine is situated in the fourth and fifth ranges of the Sierra Madre Mountains, which are the most fertile and productive in the State of Chihuahua.

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GUILLERMO BECKMANN.

THE INTERESTS IN PARRAL.

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THE HIDALGO MINING COMPANY.

A RECORD of seventeen years of successful operation in the district of Parral is a career of which the Hidalgo Mining Company can boast. When this company, which is backed with an abundance of capital, began operations in 1886, and today the company owns the following mines: Preseña, Alfereña, Viscayña, Salto, Morena, San Francisco, Esperanza, Las Cruces, Cabadeña, San Juanico, Coveña, Los Hilos, Las Guías, La Luz, Aguileraña, La Presa and Las Animas, ten of which are producing ore. The greatest depth attained is in the Preseña, 900 feet. This mine is located on the Veta Colorado, and the vein shows strong, with better values with depth.

All the mines have been systematically developed. They have been equipped with modern steam hoists, gasoline hoists, and two mills of 140-ton daily capacity, which are most conveniently connected by tramways with the following mines: Viscayña, Preseña, Alfereña, Salto, Morena, San Francisco. The Cabadeña is connected with the ore direct to the bins. The most modern machinery, most conveniently arranged, enables the company to handle its immense output to the greatest possible advantage and at small expense. There are machine shops, foundry and blacksmith shops, as well as a refining department and a water-jacket smelter for handling the slags from the refining department.

The interests, for the most part Pittsburgh capital, that organized the Hidalgo Mining Company in 1889, incorporated under the laws of Colorado the Parral & Durango Railway. The officers of this concern include S. E. Gill, president; John H. Wilson, vice-president; W. G. Muzzy, secretary and treasurer, and James I. Long, general manager. A road 72 kilometers long was constructed from Parral into the State of Durango. The prime object of such a line was for the reaching of the vast timber section found to the northwest of Parral. In this section the company has acquired 200,000 acres of timber lands, and it is estimated that there are from 100,000,000 to 150,000,000 feet of the very finest timber available. A sawmill of 25,000 feet daily capacity is now in full operation. The lands are abundantly watered by fresh mountain streams. This road is under the management of James I. Long.

The combination of the railroad and the mines and mills gives these companies not only a mutual benefit, but a double resource, since the road transports the fuel and mining products to the different mines and mills and transports their products to Parral, from where they find markets in the States. The road at the present time is doing all the general freight and passenger business it can well care for, having opened an entire new field in the shape of outlying camps, such as Guadalupe y Calvo, Baliza, Pedro Largo, La Cumbra, Batopilas and many other surrounding camps, which are important on new life and using the road for the transportation of ores as well as supplies.

The company also owns private telephones, electric lighting plants and other equipment.

established at Parral by Mr. Flynn, and a general custom business carried on. He holds large contracts with smelters, agreeing to deliver large amounts of ore of uniform grade. At present he is handling nearly 100 tons of ore a day, but will soon be taking care of much larger quantities. In this line alone business prospects are immense. Mr. Flynn is a brother of C. B. Flynn of New York, and is identified with prominent eastern men of capital, and has succeeded in interesting capital in mines of Parral. Mr. Flynn a few months ago obtained an option on the entire holdings of the Hidalgo Mining Company and through his brother, interested Joseph Leiter of Chicago in this property, which includes valuable mines, timber lands, and a railway running from Parral into the State of Durango.

Mr. Flynn has great faith in the future of Parral, both in the mines of the camp and the future importance of the city as a business center. Parral is located in the foothills of the Sierra Madre Mountains, about sixty miles from Jimenez, at which place a branch of the Mexican Central Railroad leads off from the main line and extends beyond Parral for sixty miles. He believes that the day is not far distant when a fully-equipped smelter will be in operation at Jimenez.

LONG BROTHERS.

JAMES I. LONG, American Consul of Parral, is one of the best known mining managers in the State of Chihuahua, and, as general manager of the Hidalgo Mining Company, and of the Parral and Durango Railway, he has earned a reputation for keen ability. He first went to Parral in 1886 and since that time has conducted the affairs of the former corporation, which represents investments of large sums of American capital. Later, when the Parral and Durango Railway Company was organized, Mr. Long assumed the management, and with his brother, R. J. Long, as general superintendent, has succeeded in building up the business of that company which is most profitable. The company first constructed a narrow-gauge line from Parral to Minos Nuevos, a distance of seven and a half miles, where the principal properties of the Hidalgo Mining Company are situated. Later a broad-gauge road was built over the same route and extended to Mesa de Sandia, which is situated in the State of Durango, a distance of fifty miles from Parral. This road is of special importance, as it supplies the San Francisco del Oro, Buena Vista, San Julian and other important points with much-needed transportation facilities. Under the careful management of the Longs the road has become one of the best paying propositions in the country.

Besides their connection with the Hidalgo Company's interests, of which they own a large percentage, James I. Long and R. J. Long have been doing business under the firm name of Long Bros. The firm, besides owning large interests in the Hidalgo Mining Company, Terratenas and Tajo companies, own outright the San Cristobal, San Rafael, Mary Nunez and a half interest in the Neta Yita. The latter is being extensively developed.

The Mary mine is on an extension of the Cidela mine, and

JAMES F. FLYNN.

THERE is an element of character in some men which impels them to success, not through the blunders of fortune or the possession of means, but through the commanding virtues—judgment, perseverance and honor. James F. Flynn of Parral is one endowed with such qualities, coupled with American push.

When Mr. Flynn, who is a mining man of wide experience, went to Parral, less than three years ago, he was impressed with the rich field of opportunities presented, and lost no time in becoming identified with the greatest of all industries in that section—the extraction of precious metals.

Compared with other operators he is but a tenderfoot, but though his first venture was made only two years and a half ago, it entitles him to distinction, and he is today regarded as one of the successful operators of the camp. His record of achievement is little short of remarkable, as he is the owner of some of the most promising property in the very heart of the Parral camp.

Prominent among the holdings is La Luz mine, in which a 1600-foot tunnel attains a depth of 600 feet below the surface. This property is just north of the famous La Palmilla mine, which is owned by Pedro Alvarado, and from which he has taken millions of dollars, both in gold and silver, some of the carloads running as high as \$60,000. On a separate vein, lying 800 yards to the east, is the San Cristobal and San Rafael claims, both of which are controlled by Mr. Flynn. In the same district Mr. Flynn has acquired La Lucita and La Corona, both promising properties, as they lie between the Palmilla and San Cristobal mines.

One of the most important of Mr. Flynn's possessions is a tract of nearly 900 acres, which lies along the north end of the Veta Colorado vein. This wonderful vein can be traced for nearly eight miles, and is not only the largest, but also the most important of the ore deposits in Northern Mexico. This great vein, generally speaking, runs north and south. On the south end the vein has a dip of 32 degrees to the east, and on the north end the dip reaches 44 degrees. As the mining laws of Mexico provide that one can follow the vein only to the boundaries of end and side lines, the fact that Mr. Flynn's property adjoins on the east that of many of the famous properties of the Parral camp and also that the ore bodies are dipping toward it, gives it great prospective value. It may seem strange that this valuable property has not been developed before, but this is accounted for by the fact that it was generally supposed that it had long been located, and it was only after a careful investigation that it was discovered that it was open for location. Mr. Flynn was not slow in taking advantage of the opening offered, and has since acquired property that gives promise of becoming, with development, important producing territory.

Plans are being made to begin development on the north end and if he succeeds in tapping the true ore deposits, as he believes he will, there will be a great revival in that end of the camp.

Sampling works of approved style and model have been

Long Bros. control ten properties on the line of this vein, which is one of the largest and most important in the Buena Vista district.

Both members of the firm reside in Parral, where they have other interests.

LOS INCANTOS.

INTELLIGENT development is opening a promising property near Parral known as Los Incantos mine. This is situated two miles west of Cuevas, a small station on the Rosario branch of the Mexican Central Railway, which runs from Jimenez to Parral and on to Rosario.

This property, including twenty-three pertenencias, shows little development, but where exposed in an open cut the ledge shows strong for a distance of sixty feet. The average width of ore body is four feet, carrying notices of two kilos (sixty-two ounces) of silver and ten grains of gold to the ton. In places a small pay streak is found near the center of the vein that is enormously rich, yielding as high as 600 kilos (13,000 ounces) of silver and one ounce of gold.

Title was acquired in August of this year, and a syndicate composed of chiefly prominent residents of Parral is now in control of the property. Julio Nasques owns 43 per cent. interest, while each of the following controls 10 per cent.: Rudolfo Vallejo, Juquin Botello, brother of Jose Maria Botello of Parral, and Miguel Laimon. Smaller interests are held by Tiburcio Montes, Castula Oaxaca and Calixto Montes.

The mine is being opened up under the direction of Miguel Laimon, a mining engineer of wide experience in Sonora and Lower California. Mr. Laimon is also in charge of the mining operations of Jose Maria Botello. Indications are unusually favorable and plans are being made for extensive operations.

WHITE & SILVA, PHOTOGRAPHERS, PARRAL.

MOST of the pictures in and around Parral that are shown in this edition are from the photograph gallery of White & Silva, the leading photographers of Parral, Chihuahua. This firm has made most of the pictures of the important mines and camps of the State of Chihuahua and south into Durango. Their work is uniformly good and they were chosen by the management of the St. Louis Exposition to make the views of the various scenes in and around Parral to be exhibited at the coming world's fair. Mr. White is an American and a photographer of wide experience, especially in the matter of landscapes and mountain views. The natural scenery of the western part of the State of Chihuahua affords a fine field for the use of the camera, and this firm has probably the finest collection of views, including all the important mines, of this section. Photographs may be safely sent through the mails to any part of the world at regular postage rates.

REFUGIO MINE AND MINES.

SEÑOR JOSE MARIA BOTELLO AND HIS MINING INTERESTS IN PARRAL.

To attempt a description of the district of Parral without special mention of Señor Jose Maria Botello and his numerous valuable mining properties would be as tame as Hamlet with the Prince left out.

Señor Botello, who was born in Parral in 1850, is a pioneer operator in the mining districts, and today counts among his possessions some of the most valuable mines in the State of Chihuahua. He is a miner both by instinct and preference, his father, Don Jose Maria Botello, who died in 1879, being one of the most successful operators in Parral, besides being the first to introduce modern methods in the mining and reduction of ore.

Leaving college in 1867 Señor Botello was induced by his father to try farming and after five years of very dull experience, he decided he was no farmer, but a chip of the old block. His first mining operations of importance were in the "Veta Grande" and "El Verde." Since then he has become interested in numerous other properties, including the Santa Inez, San Antonio de Caldas, Resolana, Providence, Bonanza, Esmeralda, San Joaquin, Revanche, Porvenir, Santa Rita, Apodaca, Nuestra Señora, and many others, and employs upward of 1000 men. He is a man of broad-gauge ideas; nothing is too big to be undertaken if the end to be attained is worth the price.

Among his most valuable holdings is the Santa Inez,

runs as high as 22,000 ounces silver, besides high gold values to the ton, this, of course, is not average ore, but still has been shipped in quantity from the Palmilla.

Another property of which Señor Botello is sole owner is the San Antonio de Caldas, adjoing the Palmilla on the north. The principal shaft is an incline with a dip of 70 degrees, and is 460 feet deep with five levels. In all, 6000 feet of development has been done, and there are no less than four veins exposed.

The main ore body is a strong one, ranging in width from two to six feet. In one of the lower workings a chute or chimney was encountered that carried gold and silver in high percentage. In the center of this chimney and in the form of a streak was found six inches of ore running 1400 ounces silver to the ton. Another vein was found from the 460-foot level, and 60 feet east to the shaft that is six feet wide and yields ore running up to 75 ounces silver and two and one-half ounces gold to the ton. The average of all ore shipped from this vein has been twenty-five ounces silver and three-fourths of an ounce of gold to the ton. There has been only 300 feet of development work done at this point and the company are just commencing to explore it.

Veins from the west dip east and veins from the east dip west. Mr. Laimon, engineer in charge of all of Botello's mines gives it as his opinion that all these veins will converge at a depth of 600 to 650 feet. This has been demonstrated in the Palmilla mine where they have the big

month. The main shaft is 460 feet deep, and the mine being opened up in a system.

Between the seventh and eighth level water was encountered and a pump recently installed.

The ores from this mine are hauled to the shaft by mule cars a distance of 1000 feet, and dumped direct into the cars of the Railway.

The group of mines known as Veta Grande, Sangre de Cristo, consisting of two hundred pertenencias, is one of the oldest in the district in which extensive work has been done.



SEÑOR JOSE MARIA BOTELLO.

which lies to the south end of the Palmilla Hill and joins the famous La Palmilla mine. This group is comprised of two pertenencias and the ore body opened up is the south extension of the famous Palmilla vein. Work in this mine has been prosecuted for two years, and in all 4000 feet of work has exposed very valuable deposits of ore. Last year this mine, which is the sole property of Señor Botello, produced \$70,000, and this sum will probably be exceeded during the next twelve months.

There are three distinct veins, first in importance is a gold-bearing ledge, averaging fifty feet in width, and carrying fifteen ounces in silver and from ten to twelve grams of gold to the ton. The vein is worked only from the tunnel level to the surface, a distance of 150 feet. Shipments run about fifty tons a day, and are sent to the smelter at Mapimi. The high-grade ore averages 150 ounces silver to the ton. Another vein lies to the east of the shaft, is ten feet wide and is opened to a depth of 400 feet. High grade ore from this vein runs nearly 1000 ounces silver to the ton, with a little gold. Present indications point to the convergence of these three veins at depth and to their being the real Palmilla vein. Bonanza ore in the Palmilla mine is 120 feet laterally from the present workings in the Santa Inez, and are also 30 feet deeper. About 125 feet more in depth is expected by the engineers to bring the Santa Inez into the same vein and the same ore that is now being worked from the Palmilla—which are the highest grade ores ever worked on a large scale in the whole Parral camp. While some of the ore

bodies of ore of high grade at depth and no outside veins are found.

In this property alone 200 men are employed. To the west of the San Antonio Caldas and Palmilla lie the Santa Brigida and the San Antonio de la Peña, which are also the property of Mr. Botello. He proposes to work these two from the Caldas shaft, and eventually the San Antonio de la Peña from the Santa Inez, thus connecting all the work and giving a total length of development work on these veins of over 1500 feet. The Palmilla has 1200 feet on the line of vein, but Botello's holdings exceed this figure, having eleven pertenencias on the Palmilla Hill and practically surrounding the mines of Pedro Alvarado.

These mines are worked with great economy as will be seen from the fact that the mining is done at a cost of from 20 to 25 cents a ton, Mexican money. All the work on the various Botello properties is well done. The tunnels are dry, well lighted and ventilated and all the work is up to the highest standard. Good wages are paid, the men are contented, and good management is shown throughout.

The Territos, more commonly known as the Los Muertos, consists of five mining claims, and this property is one of the principal producers of the Parral camp. Close to 1600 tons of ore are shipped each month, all being taken at the Guggenheim's Smelter.

This mine adjoins the Quebradillas on the south and the Terratenas on the north, and since 1887 it has been an important producer. Its yield is said to be \$15,000 net a



SHAFT AND HOIST, SANTA INEZ.

ago they sustained nearly all the mining of the district, withstanding the fact that then it was very expensive to work the mines of this district, because freight on tools was so expensive and also because of a tariff for reducing the ores.

Work is soon to be resumed on this property. The Veta Grande mines are situated in the Cerro de la Cruz, and have thirty-two pertenencias, or claims, and are by 200 meters wide, on large ledges of ore carrying silver, which are peculiar in that they contain a large percentage of gold. The cost of extraction. The works are not yet started, but these are two mines of much promise.

Mr. Botello is also interested in the Tabasco mines, many years ago with very profitable results. It was done on account of becoming full of water, and it was leased by the American Zinc and Lead Company, which has found a great abundance of a rich percentage of silver. This fact has great value to the mine.

Mr. Botello is also principal owner in the plant at Parral that is one of the most complete



HACIENDA DE BENEFICIO, PARRAL.

works in the district. It was erected at a cost of half a million dollars, and is equipped with concentrators, cornish rolls, roasting plants, furnaces and every appliance necessary for the treatment of ores by this process.

Señor Botello is a splendid type of the class of the native Mexican business man of the times and shows the true spirit of progress to develop the latent resources of his country. A man of broad education and culture and at home in the highest circles of society, he is the finest of that city of fine residences. In his exclusive business, he has backed his own money and has been uniformly successful in his big operations.

THE TERRENATES CONSOLIDATION COMPANY.

ONE of the big properties along the line of the "Veta Colorado" vein is this important property made up of twenty-six pertenencias, and composed of the Terrenates, the San Antonio de Caldas, and the San Antonio de la Peña, grouped together to form "The Terrenates Consolidation Company." This mine is an old one, having been worked by Mexicans with Mexican methods, viz. by rich ore and letting the ground fill in with waste. The early workings were carried to a depth of 400 feet, and were abandoned. It laid idle for many years, but it attracted the attention of Mr. Frank H. Husted in the spring of '92, and as a result of investigations and preliminary work done by the present company was organized in October, 1902, this consolidation of claims under a capital of \$1,000,000, a par value of \$5.00 a share. The company is a strong one, including the following officers: President, T. L. Eyer, secretary and treasurer, Mr. Frank H. Husted as general manager. Brown is the superintendent at the mine, a Philadelphia company. President Eyer is a well-known financial family of that name, and the stock of the company being held in that sense a close corporation, none of the stock is on the market.

Work was started by the new company in the present year under the direction of Mr. Husted. The shafts were caved in, and filled up and the whole property had to be re-shafted and drifts retimbered and the waste removed in a miner-like fashion. This work was done in addition to this they have sunk the main shaft to a depth of 600 feet, besides over 3000 meters (6000 feet) certainly a good record of development work consumed. This development work in the Terrenates at the rate of 700 feet a month continued until the mine is fully developed to the company own about 4500 feet directly at

TERIOR OF OFFICE

Electric Station and 1000 foot vertical hoist. The Terrenates Company is situated on the Santa Fe Railroad, and they are constructing a new gauge and operated by power generated from a saving in the cost of the mine. The mine is situated on the Santa Fe Railroad, and they are constructing a new gauge and operated by power generated from a saving in the cost of the mine. The mine is situated on the Santa Fe Railroad, and they are constructing a new gauge and operated by power generated from a saving in the cost of the mine.

NATIONAL

and the foremost mining business in Mexico. This concern is a strong one, including the following officers: President, T. L. Eyer, secretary and treasurer, Mr. Frank H. Husted as general manager. Brown is the superintendent at the mine, a Philadelphia company. President Eyer is a well-known financial family of that name, and the stock of the company being held in that sense a close corporation, none of the stock is on the market.

THE HOUSE OF STALLFORTH.

PRINTED across one of the principal business fronts in the city of Parral is the name "F. Stallforth y H'no Sucrs y Cia." and in smaller letters "F. S. & Bro. Successors." The exterior is far from imposing, and to the uninitiated the modest title conveys but little, yet in all of Northern Mexico there are few firms as well known, or whose financial standing commands greater confidence. "The House of Stallforth," as it is more generally known, was founded in 1862 by Frederick Stallforth, who first engaged in a general merchandise business at Monterrey. Though successful in that city, the founder of the firm, while on a visit to Parral, was impressed with the opportunities offered in a business way. This was prior to the advent of foreigners, and the difficulties of introducing new methods and winning the confidence of the buying public was no light task. The new enterprise was launched as a general merchandise establishment, and from the modest beginning the present house was developed.

Later William Stallforth came over from Germany to join his brother, and as the business expanded, the firm added new departments. F. Stallforth gradually became interested in mining, and as the industry grew in importance, careful study was made of its possibilities, with the result that none engaged in legitimate mining enterprises ever applied to the firm in vain. Encouragement was given always and financial support when judgment permitted. Not only were large sums of money loaned, but the product of the mines was bought. For years the output of the famous Batopilas silver mine was handled through the firm. The house soon took the lead in the marketing of supplies, and for years supplied all the quicksilver used at Parral and the camps of the interior.

All this was in the days before railroads traversed the great plateau of Northern Mexico; before the construction of the great Mexico Central Railroad system, when most of the goods used were shipped from Germany to San Antonio, Tex., and from there conveyed overland by wagon to Parral. Many steamers came to Matatlan, then, as now, the most important port on the West Coast, but in both instances the hauls were long and most perilous, owing to the hostile Indian countries through which the routes passed. Many freight-trains were looted by these savages and countless stories of wild adventure could be written in glowing colors if told in the language of teamsters who have survived early campaigns. With the completion of the Mexican Central to Jimenez in 1882 and the construction in 1899 of a branch from Jimenez to Parral, a wave

ate is composed of the following officers: Jorge Hemmighoffen, president; William C. Beckmann, treasurer; Leopold Iwonsky, secretary; Arturo Longega, and with William Hagemann, manager.

This company was incorporated in October of this year and at once acquired from the firm of Stallforth & Co. the property including a group of twenty-five pertenencias, covering 2800 feet on direct line of main ore body of the San Pedro camp.

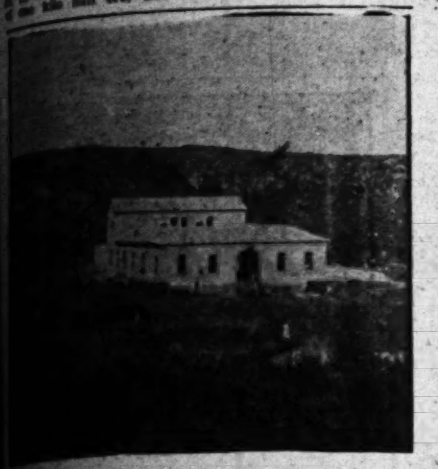
On the property are three shafts fully equipped with steam hoists and pumps. Levels have been run, with a view of opening the mine in workmanlike manner.

The camp of San Pedro is one of the oldest and most famous of the early Spanish mines of this entire section. This mine was worked with great success and over one million dollars is supposed to have been taken out in the early days. Only the crudest methods were employed, and no development was attempted below the water level. Ore is high grade, even for this camp, where the average is high.

A big new working shaft of three compartments, is now being sunk on the site of the Bonanza workings of the Old Soto claim, which was the important producer of early days. This shaft is equipped with a 50-horse-power hoist, and with cages and pumps capable of sinking 500 feet.

and the mine is now working to a depth of 600 feet. It is not easily seen that when the present plans are carried out, it will mean a big developed mine—especially when it is taken into consideration that this Veta Colorado will carry an average of 200 feet in width. This size of the vein, as given, represents the total width of the ore body, between walls in which are found the ore chutes, running in width from 10 to 20 feet, with a possible average of 15 feet. These figures are correct and while they seem to be big and not only big, but true.

General Manager stated that the ore of the Terrenates Mines would give values of from 500 grams up to 57 kilos, which would give values of from 25 to 1750, in silver, with an average of one kilo half ore, and that with the lower workings



GENERAL OFFICES, TERRENATES MINING CO.

are appreciable gold values coming in. This much is the mine is steadily improving with depth. The ore body has been examined at a distance of 40 feet, all of which was solid ore and the wall on the "hanging" side has been reached. The ore within this vein, on the other hand, is of the Terrenates ground has been proven, by development work to carry for a distance of 2300 feet, every apparent indication that with depth the ore will be larger, more permanent, and of a much higher grade.

The matter of equipment this company has under proper consideration what will be the most complete plant, or in this whole section for the economical working of their ores.

The power used will be electricity throughout and to this end there has been installed in the new modern power-house DeLaval steam turbine engines of 300 horse-power. These turbine engines are the very latest and the product of the modern ideas in the application of steam power and are an interesting piece of mechanism. The power in charge explained that these big turbine engines revolve at the tremendous rate of 3000 revolutions per minute. These two engines will generate, through the connected dynamos, 200 kilowatts, equaling 600 horse-power.

The shaft is supplied from two 300 horse-power Geary boilers. The high chimney of the Terrenates plant rising to a height of over 100 feet, presents an imposing feature of the mine. The shafts are also being equipped with 50-horse-power electric hoists of the most modern type, and



INTERIOR OF OFFICES, TERRENATES CO.

Electric Station and Sinking Pumps, with a capacity of 1000 feet vertical level. The power plant and shaft are owned by the Terrenates Company and at present some two miles distant from the terminus of the Parral and Matatlan Railroad, and to connect with this road the company are constructing their own line, which will be owned and operated by their own electric motor power generated from their own plant. This will be a saving in the cost of handling the ore as it will be hoisted from the mine and dumped directly into the ore for the smelter. A slight saving like this, on ore, with a mine with a heavy tonnage like this, means a great deal in a year's accounts.

The company have accomplished a vast amount of work in the time that has elapsed since actual operations began, and all indications point to the Terrenates Company ranking with the most regular and heavy shippers of Parral camp.

Some offices of the company are at 211-212 Arcade Street, Philadelphia, Pennsylvania.

NATIONAL METAL CO.

The foremost concern actively engaged in the mining business in Mexico is found the National Metal Company. This concern makes a business of buying and selling all kinds of metals and products of chemical processes, such as sulphide and cyanide precipitates. It exports a heavy amount of fine gold and silver to foreign markets, as it is an established fact that the government metal market cannot compete with the United States or Europe. One element which has been a great factor in the enormous growth of the National Metal Company is the fact that the concern receives and pays for production for the valuable material handled, and it is not only a fact as well as all questions as to the value of the metal.

The principal office is in Mexico City, Apartado 718, New York office, No. 100 Broadway.

Complete irrigation plants are being sold in Mexico by the Mexico Mine and Smelter Supply Company, representing the Morris, Cameron, Goulds and Snow companies.

Mining machinery is largely in demand in Mexico. The Mexico Mine and Smelter Supply Company have recently received orders with American factories.

Wiley concentrators are being sold in Mexico by the Mexico Mine and Smelter Supply Company, representing the Mexico Mine and Smelter Supply Company, No. 100 Broadway.



ARTURO SHAFT, SOTO MINE.

of prosperity swept over this section and greater expansion followed for the "House of Stallforth." F. Stallforth returned to Germany in 1880 and died there a few months later.

George Hemmighoffen became manager of the firm in 1884, and after acquiring a large interest in the business. The following year a private bank was opened that has the reputation, backed with a clean, unassailable record, of being as solid as the Rock of Gibraltar. Though holding no charter from the government, checks were issued, but no bills struck. In spite of this lack of advertisement, through the medium of currency, the house is known from one end of Mexico to the other.

Its long identification with the mining interests of Parral and its vicinity is a unique position in that few mining deals have been consummated without the assistance of the "House of Stallforth."

In the early days the firm put in a complete "patio" process for treating the ore, and is today operating what is known as the Old Botello mill, consisting of thirty stamps, which handles 45 tons of ore daily. This mill is handling almost exclusively the low grade ores of the famous La Palmilla mine, the property of Don Pedro Alvarado. The firm's relation to Alvarado, the much advertised millionaire of Parral, is that of banker and banker. It was with money advanced by the house of Stallforth, amounting to \$120,000, that Alvarado was able to develop the wonderful La Palmilla, and the firm is today buying all of the low grade ore on contract from this property.

Before the confidence of outside capital had been won, the "House of Stallforth" became interested in numerous mines in the Parral camp and the ore, and is today operating what is known as the Old Botello mill, consisting of thirty stamps, which handles 45 tons of ore daily. This mill is handling almost exclusively the low grade ores of the famous La Palmilla mine, the property of Don Pedro Alvarado. The firm's relation to Alvarado, the much advertised millionaire of Parral, is that of banker and banker. It was with money advanced by the house of Stallforth, amounting to \$120,000, that Alvarado was able to develop the wonderful La Palmilla, and the firm is today buying all of the low grade ore on contract from this property.

The firm is today still largely interested in mines and prospects and there is probably no better stocked machinery-house in the republic than its establishment at Parral. A complete line of mining supplies is handled, and at figures that meet all corners, as is shown by the long list of patrons who now draw upon the firm for anything from timber nails to a well-equipped mill of latest design.

George Hemmighoffen, manager of the firm, is a wide-awake, keen, energetic business man, and his nineteen years of residence in Parral have given him a keen insight into the resources of the country and the possibilities for the developments of its varied industries. In speaking of mining, which is by far the most important of all, Mr. Hemmighoffen expressed the greatest confidence in its future, predicting that the next few years would furnish many surprises.

"There are the best of opportunities for the investment of foreign capital," said he, "as there are many openings, good ones, that could be embraced with profitable results by those who would engage in mining as a business. Already, hundreds of thousands of dollars of American capital is represented in and about this camp, and in most cases the companies operating have prospered."

Mr. Hemmighoffen is ably assisted in the management of the affairs of the company by Mr. Leopold Iwonsky. Mr. Iwonsky was born and raised in Parral, and is in thorough touch with the business interests of that entire section.

From the very nature of things it will be seen that this firm is in a position to be thoroughly conversant with all the details of the mining world of that important section of the country besides being among the largest individual owners of mining properties in and around Parral. This fact, added to the staunch integrity and conservative business methods practiced, places them in a position to render invaluable assistance to intending purchasers of mining properties in Parral, Guanacavi, Santa Barbara, Minas Nuevas or any of the surrounding country.

SOTO MINE, GUANACAVI.

One of the really important properties being opened up near Guanacavi, Durango, is the Soto mine, owned and operated by Stallforth and Longega interests, under the head of "Compania Minera y Anexa." A company has been organized with a capital stock of \$100,000 fully paid up. The director-

The ore chute has proven to be over 600 feet in length, and to the water level, a depth of 150 feet, the ore body is uniform.

It is the intention to sink below the old workings, and from there to cross-cut to intersect parallel veins, which crop to the surface. The veins, exposed, are large, running from one meter to two meters in width, and are regular true fissures. Depth has proven them to be strong, regular and permanent. The walls are well defined.

The values, average throughout 15 kilos (460 ounces of silver), and 46 to 45 grams (1 1-2 ounces) of gold to the ton.

The first-class ore is now being shipped to the smelters, and in lots of from ten to fifty tons this ore will run up to 30 to 35 kilos (350 to 1050 ounces) silver, and from 60 to 65 grams (2 to 2 1-4 ounces) of gold to the ton. Recently in the Arturo shaft bonanza ore was encountered on the third level. The vein there was a little over one meter in width and the average ore yielded 40 kilos (1500 ounces) silver and the usual values in gold. At this point a drift has been run for 40 feet and from the development work alone \$45,000 was taken out.

There are few more promising properties in the State than the Soto mine, and the workmanlike manner in which it is being developed will be sure to place it in the front rank of big producers. Adjoining it on the south is the north famous El Forvenir, Bonanza mine, where ore of the value of 3000 ounces of silver to the ton was recently struck in quantity. This strike proves the continuity of the vein and the Ristori shaft of the Soto mine is only 15 meters (50 feet) from the strike. Those who are familiar with the underground workings declare that the new ore body is but fifteen feet from the end line of the Soto mine. To the north, but on the continuation of this same vein, wonderfully rich ore was recently found in the Nueva Australis mine, owned and operated by well known Colorado men.

Important operations are planned, including the construction of a new wagon road, which will be run out from Guanacavi to the property. At the present time the shipping rate on ore is \$20 a ton, but the extension of the International Railway from Durango to Tepic will greatly facilitate the handling of ore and will reduce the shipping charges. This line is assured and will probably be in operation before the end of next year. It will not only afford an outlet for the ores of this property but to other promising mines in the vicinity.

That this property has the backing of Stallforth & Co. is in itself conclusive evidence of its merit as, while this firm is always ready to become interested in mining property that shows value, it is conservative in its operations, its record in the handling of mining property is yet to be marred by a single failure.

Before assuming the management of this company a thorough investigation was made. Arturo Longega, a director of the company, spent weeks on the property passing on every detail. Mr. Longega, though a young man, is a mining engineer of standing. He has been interested in mining for years and since 1900 made a fortune in the Guanacavi district.

With plenty of wood and water to be obtained, there is much in favor of this new venture.

MORA, PHOTOGRAPHER, MEXICO CITY.

THE portraits of President Diaz used in this edition are from the gallery of O. de la Mora, second San Francisco street, No. 4.

Mr. Mora has probably made more portraits of President Diaz than any other photographer and his work has received the personal commendation of the President and the other members of his family, as being the best and most natural of any so far executed.

In the lobby or entrance to the Mora gallery on San Francisco street there is a life-size portrait of the President that commands the attention of all passers-by. This is a picture that was taken in the President's room in the castle of Chapultepec about two years ago, and shows the Chief Magistrate in civilian's dress. Mrs. Diaz is authority for the statement that this is the best picture extant of the President.

Mr. Mora is a native of Mexico, having been born in Guadalajara. His work is ranked as among the most perfect of Mexican photographers, having been awarded no less than seven gold and silver medals of the first class at the Paris and other exhibitions.

Mexico is situated at an elevation of nearly eight thousand feet, and the air being remarkably clear and free from dust affords the most perfect atmospheric conditions for expert photography.

THE undeveloped condition of Mexico's mineral resources could not be better illustrated than by a brief history and description of the Sierra de Almoloya and the big mines recently opened up there.

For years the Parral branch of the Mexican Central Railroad has borne past this mountain range mine-seekers from the States bound for Parral or points far away in the Sierras. Twenty miles from Jimenez, Sierra de Almoloya looms up to the left of the railroad, and is about four miles distant from the nearest station.

from the nearest station. A few years ago, the old Spanish adobe smelters in treating the lead ores of the Santa Barbara district, went with their pack trains of burros to the prospect-holes of this mountain, esteeming the low-grade surface ores of high value for fluxing, by reason of the large percentage of iron in them, not dreaming at the time of the valuable high-grade ores immediately under their feet. Shallow holes were sunk in the mountainside, but before any depth was had, the adobe smelter was a thing of the past, and with it was forgotten the prospect holes of Almoloya. People were looking for prospects more inaccessible.

These Almoloya prospects were neglected until four years ago, when the ore buyer for the Guggenheims bonded the old Cigarroa, and for almost a year he puttered away. Inexperienced in mining, and knowing nothing of the lime formations, he gave it up, leaving as a monument to his well-considered scheme, but faulty efforts, an irregular, tortuous shaft 300 feet deep.

For two years more the coyote held undisputed sway in these mountains, and it remained for a Mexican mining engineer to uncover the treasure. With little money, but urged on by the firm conviction of ultimate success, he drove a crosscut from the old Cigarrero shaft into the mountain.

hua, an edifice of great architectural beauty, costing \$500,000, and the church at Santa Eulalia, which represents an expenditure of \$100,000. These were built at a cost of 17 cents per ton of silver. The funds were raised by a special tax levy upon the product of this famous camp. This tax required a payment by the producers of 12 1-2 cents on every \$80 worth of silver extracted, indicating a production of \$50,500,000, or nearly a million of dollars a year for seventy-two years.

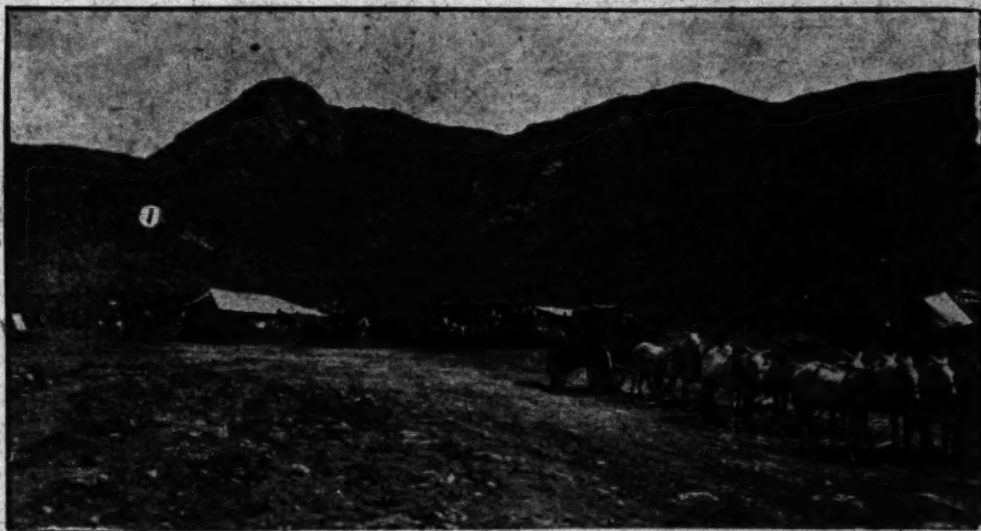
Toward the end of the eighteenth century the district became almost abandoned, and it was common talk that it had played out. The construction of the Mexican Central Railroad in 1832 along the axis of the great Mexican plateau marked the beginning of the second epoch—like American invasion. American capital followed the railroads, bringing with it mechanical appliances. One by one the valuable properties have been absorbed and today the entire mountain, with but few exceptions, is in the hand of Americans. The mountain on which these mines have been worked is fifty miles in length, five miles in width, surrounded by lower desert plains. It is composed of igneous rocks, except within the mineral district proper, which is limited to a length of about six miles. Limestone outcrops in the very interesting part of its history, but the ore bodies are entirely in limestone without true igneous contacts.

The ores are mainly the chlorides, carbonates and sulphides of silver, argenterous calena and salts of lead, together with chloro bromide and iodide of silver. They carry large percentages of lead, iron, lime and sometimes manganese, which gives them greater value than their mere silver contents would imply, inasmuch as they thereby become essential to the smelters for fluxing the more refractory sulphides and silicates of other lead ores. This reduces the smelting charges for the silver from less than

ing Company, underground works on Domingos property, and both have been closed. It is reported that the ore body in the east in the camp. It is estimated to be 100 feet wide and 400 feet deep. In the 500 to 600 men are employed.

The American Smelting & Refining Co. (trust) has absorbed the Minn. Iron & Steel Co. properties. From these mines is being shipped daily which will run in silver to the ton. The ore runs but high in lime and manganese.

One of the most important products is that of the Santa Eulalia Mining district, a group of four claims. These are the Santa Eulalia, Eureka, Pitu and Santa Eulalia, given in order of their importance. These mines, which are owned by



SHIPPING ORE FROM THE CIGARRERO MINE, SIERRA DE ALMOLOYA DISTRICT.

and when at last the little seam suddenly opened into an immense cavern, sparkling with calcite crystals, and filled as a large bin with rich carbonates of lead, carrying gold and silver, he shook himself free from his debts, and within a week was counted a rich man. This was less than a year ago. Since then the mine has shipped 5500 tons of ore, netting nearly half a million dollars.

ing heavy base a minor bonus. This ore is also completely oxidized and decomposed that a stroke with the pick will loosen tons. Not a pound of powder is used in the mine. The ore is scooped up like granulated sugar and analyzes .34 ounces of gold, 17 ounces of silver and 23 per cent. of lead. The silica rarely exceeds 6 per cent., the balance being lime, iron and manganese. So desirable is this ore for fluxing that the excess of iron and lime pays freight and treatment charges.

to the surface, the production being limited to the tonnage capable of being raised in this way. Seventy peons carry it in loads varying from 200 to 275 pounds through the cross-cut, over up the single line of "chicken" ladders, the men then descend to the bottom of the shaft, where they load the ore on their peon fourth and return like ants, delivering forty to sixty tons each day to the burro trains, which pack it down the steep, narrow trail to the wagons 250 feet below; thence in turn haul it over a fine level country to the railroad at Barga Station, four miles from the camp, whence it goes to Miami.

frase or Montevideo. The ore being driven into the mountains to connect with the old shaft. A chute has been constructed from the tunnel mouth to bins on the road below, so that the ore coming from the mine in cars will reach the wagons by gravity. The early date of a spur, four miles long, from the railroad, so that the ore will go directly from the mine cars to the railroad cars. Equipment with the improvements contemplated, the mine will once take its place among the foremost of the MEXICAN MINES.

The development of this mine has attracted attention to the district, and today there is not a single square foot on the mountain that is not part of a mining claim. The outcrop in various places shows a mineralization most remarkable.

To the west of and adjoining the property of the Cigarrero people is a mine containing fifty-seven Mexican mining claims, owned by Mr. N. O. Barge of Los Angeles. Large outcrops similar to those of the Cigarrero show the mineralogical composition of the ore. The geologic development work in the district is going forward on this property. Three shafts are being sunk, the men working night and day. Already, ore of high grade has been encountered, and, as the mine is showing in places, it is very similar to the Cigarrero.

The Sierra de Amolmoya lies on the great limestone belt that skirts the eastern base of the Sierra Madre. It is the rare limestone belt in which are found the famous mines of Santa Eulalia, Mapimi, Terrazas and Sierra Mojada, which have yielded and still yield millions every year. In none of these camps are there any of the copper, lead, zinc or cadmium ores which gold as are found in the Sierra de Amolmoya. With the proper expenditure of development money, the Sierra de Amolmoya is destined to take rank with the traditional mines of olden Mexico, which, pouring forth their riches into the waiting laps of the Spanish invaders, marked the golden age in Mexican history.

SITUATED fifteen miles eastward of the city of Chihuahua is the Santa Eulalia mining district, one of the most famous and historic silver producers in all Mexico. Its history is almost synonymous with the mines of Chihuahua, having originated with their exploration. Divisible into two epochs this history supplies chapters in the records of mining. The first era, from the time of the first discovery by the Spaniards in 1591 until the present time it has produced bullion to the value of many millions of dollars, and new finds within the past few months have exposed new ore bodies that assure its value as an important pro-

During its development under the Spanish regime the mining sector was only a secondary and without special technical appliances. The ores were smelted on the ground solely for the silver and lead values and the silver minted into coin at Chihuahua. At the beginning of the 15th century 63 primitive reduction works with 188 furnaces and 61 cupelling furnaces were in operation and great slag dumps could be seen at midday as monuments to the industry of the early days.

Records show that from 1705 to 1737, a period of thirty-two years, the camp produced \$2,000,000 of silver per annum. This showing is all the more remarkable inasmuch as during that period not a single mechanical appliance was used. Up to 1791 the mines had produced silver to the value of \$112,000,000. The magnificent cathedral at Chihuahua

\$4 a ton to nothing. Premiums being paid in some instances.

Today two branches of railway connect the camp with the Mexican Central at Chihuahua, one a broad gauge, runs into the valley of Santa Eulalia and the other, a narrow gauge, taking the ore from the dumps. The last line was recently absorbed by the former. In the various properties of the camp over 3000 men are now employed in clearing and hauling ore, which is shipped to various smelters. The daily shipments estimate at 2000 tons, nearly all being taken by the American Smelting

SHAFT NO. 1, BAGG

are under the management of Mr. J. worked extensively. The ore bodies rich, and there is much undeveloped pany is now prospecting. In the fifty and sixty men are employed, increased considerably in the past

A depth of 1670 feet has been attained on the Santa Eulalia claim, and from there run in all directions. The next day on the Eureka, where a shaft has been sunk 697 feet. Another shaft was sunk

For several months last year little effort was being made to discover prospecting is done with a diamond drill soft and easy to work. As an evidence the ore bodies already developed, the authority of the management that last eight month's ore shipment netted 999 gold. The ore carried an average United States currency to the ton.

The management has adopted the opening up of this property, has at present a better understanding of its prospective value. The showing on the presence of greater ore bodies and plans for future development depend on the success of the effort to locate these ore bodies. That these efforts will be successful, with the conditions in the camp have improved, the immediate wealth behind this little ore no trouble in carrying out development than has yet been a valuable property.

Santa Eulalia Explor.
One of the latest arrivals in the Santa Eulalia Exploration Company. tion, with ample backing to carry on planned. Although active operations months ago, the company is regarded solid operators. The company

100

character as to be
of unusual
September the opening
with shipping com-
and 40 per cent. In
fifty men have been
is soon to be increas-
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SEÑOR DON LUIS
the largest cattle ranch
in Mexico, and now servi
governor of the State of Chi

12,000 were given the 'one good season's' crop of the year that was the blessing. Chas. is a careful business man, the numerous enterprises in what might be called his wealth through the four-year, he has been as active as a man in the capital of the state, the father of M. 1911. Besides being a commercial importance, a hotel, erected at a cost leading to the chambers, more than 200 buildings, a large iron works, a brewery and a junction point of the Mexican and Pacific Railways, and electric and board terminals on the date improvements.

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CTGARBERO MINE, SIERRA DE ALMOLOTA.

Refining Company. The men employed are for the most part Mexicans, regular miners receiving \$1.50 to \$2.50 (silver) a day, while machine men receive \$3.00. Like other camps in the State it is a dry one, water being pumped from the river near Chihuahua and raised 1,800 feet.

Among the important properties are the Santo Domingo, El Coroneil, Santa Rita and Zubieta, owned and operated by the Chihuahua Mining Company, which is part of the smelter trust. The Santo Domingo has yielded for the past 300 years, and is today a big producer. Two big shafts, 1500 feet in depth, tap the ore bodies that have yielded on an average of 200 tons of ore a day for the

The mine is equipped with hoists, air compressors, electric plant, and both air and diamond drills. The ore bodies carry silver and lead in percentages of about twenty-five ounces of silver to 38 per cent of lead. As in other parts of the camp the ore is found in kidneys in an irregular lime formation.

In the El Potosí mine, the property of the El Potosí M.

of eight mines, including the San Ingleterra, Apex, San Antonio, Santander and Santa Eulalia. New ones were acquired at an outlay of close to 100,000,000 pesos, almost \$20,000,000.

For several months Prof. R. D. of the company, made a thorough formation along the mineral convinced that in certain directions was fully prospected. Working on prospecting in the Buena Tierra, on the camp, and by intelligent devices bodies of ore of great promise. On unusual formation of the mineral broken and turned over by the camp, to follow these openings for without using pick or drill, in the thorough and calcareous, and the

concentrator is universally recognized as the best in the market.

It also represents the Sullivan Machinery Company, manufacturers of diamond and rock drills, air compressors, etc.; also the Cameron & Snow Steam Pump Company, whose respective products are the standard in Mexico.

As incidental to mining it may be said that the Mexico Lumber and Smelter Supply Company carries the largest stock of assay supplies and laboratory apparatus in the republic, which it imports direct from Europe and the United States.

It has long been the exclusive representative in Mexico of the Standard Fire Brick Company of Denver. It therefore enjoys unparalleled advantages in the sale of all kinds of clay goods. All its porcelain and glassware and chemicals are brought from Germany, and it constantly carries a large line of Smith & Thompson and Ainsworth assay balances and laboratory crushers, and apparatus.

Ever since its foundation the company has represented the Erie City Iron Works, whose engines and boilers are well known in Mexico. Somewhat later it added a complete line of small engines and boilers made by Orr & Sower, and has recently put in a stock of the Leffel make. It constantly carries in stock engines and boilers up to 125 horse power.

In the line of machine tools it represents the Niles Tool Works, the American Tool Works, Wallis Bros. & Co., Bennett, Miles Co., Pratt & Whitney Co., Hart Manufacturing Company, Atlas Tool Works, and others.

On the line of transmission machinery it represents the Dodge Manufacturing Company, and carries an immense stock of wood split pulleys, and other articles.

It has the exclusive agency for the Revere Rubber Company, manufacturers of rubber belting, hose and packing, and also Fayerweather & Ladow, the largest manufacturers of leather belting in the world.

The Mexico Mine and Smelter Company would not be a complete supply house if it did not carry agricultural machinery, so much needed in the progress of agricultural development in this country. It carries the largest stock of such machinery handled in the country, of the manufacture of the John Deere Plow Company, a stock that includes the latest type of agricultural implements and machinery, including disk plows, cultivators, wheat and corn planters; mowers, threshers, shellers, etc., and the company also carries a complete line of wagons and trucks, including the celebrated Smith-Bond wagon.

The facilities of the Mexico Mine and Smelter Supply Company for prompt shipment are unequalled in the republic. Besides the immense and varied stock carried in its warehouses corner San Juan Letran and San Francisco streets, it has warehouses situated in the section of the city known as Nonolco, covering six acres of land, and with track connection with the various lines of railroad. The more bulky machinery, together with all machinery stock in excess of the requirements of the salesrooms, are held at the warehouses. The goods are loaded into the cars direct from the warehouses. Shipments are made in the minimum of time, and every effort is made to fill orders with the utmost dispatch and intelligence.

The company has made large sales somewhat recently to El Oro Mining and Railway Company, the Dos Estrellas, the Adebarran, the Victoria, El Aguila, Old Abe, La Amistad, Bessie and other mining companies. It has controlled these recent orders on account of being an outfit machinery and supply house, concentrating all its efforts on that line. The company has undoubtedly the largest and most complete stock of machinery and supplies to be found south of Denver. It carries a complete line of Blake & Dodge crushers and crusher parts, crushing rolls, sample grinders, double centrifugal gears, and friction hoists, horse whips, Trux, Standard, Leadville, Kirtland, & Jacob, a direct from the Koppel ore cars and water skips, ore buckets, sinking and station pumps, portable track and cable, Wilfley concentrators, so favorably known in Mexico, and of which more than six thousand are already in use. This is the pioneer concentrating table, constructed on the true principles of rimes terminating on a plane surface. This table has been improved until it is almost a perfection.

The rock drills and compressors the Sullivan Machinery Company sell well in Mexico, as well as the Bravo Diamond Drill, all of which have been introduced into Mexico's trade by the Mexico Mine and Smelter Supply Company. They have also made popular the sinking and station pumps of the Cameron Steam Pump Works, considered the most thoroughly reliable mining pumps on the market.

Many of the engines and boilers of the Erie City Iron Works, which are handled by this company in successful use in El Oro, as well as other sections of the country.

This company probably sells more pipe and fittings than any other two houses in Mexico. It carries an immense stock of the National Tube Company's pipe, and Crane, Jenkins & Ludlow's fittings in all sizes up to twelve inches. It recently sold several carloads of pipe to one company in El Oro, as well as in Tampico. The house carries every line of pipe-fitters' tools, Carey's asbestos coverings and Forbes's die stocks for threading and cutting up to six-inch pipe.

It carries both rubber and leather belting up to widths of twenty inches. Its trade is increasing rapidly, and with the industrial expansion of Mexico there seems to be no limit to its future usefulness.

THE MEXICAN TRACTION COMPANY.

THE Mexican Traction Company, capitalized in \$1,000,000 gold, in the fall of 1903, commenced to reconstruct the old Banos line, changing it from a slow, old-fashioned mule tram service to the most approved modern electric line service that is possible to capital and mechanical skill. Early last September a group of American capitalists acquired the tram-line franchise in this city, which is the basis of the Mexican Traction Company. This will prove a competitor to the existing street-car lines, which are controlled by an English company. The two lines taken over by the Mexican Traction Company were the Banos Railway and the Linea de Circumvelacion, the latter a concession held by John J. Moylan and associates. Mr. Moylan became a stockholder and director in the new company. The first-named line was a mule tram service running from the eastern side of the city to Pano de Azucar, and when transformed into an electric traction line will run from the depot of the Inter-oceanic Railway at San Lazaro to Tacubaya, connecting there with the Mexican National Railway. The total line of twelve miles through the heart of this city is to be operated by the overhead trolley. The price paid was \$212,000. Actual delivery was made on behalf of the estate of the late Romualdo Zamora y Duque to M. B. McAdoo, president of the Mexican Traction Company. Pedro Mendez is secretary and treasurer. Ramon Alvarado is vice-president; C. G. Pierce is general superintendent. Mr. Pierce is conducting the operation of the new Banos line, which will be broad gauge, and the same fares as now obtain in the capital will be collected, 6 cents local and 10 cents to Tacubaya. Besides this line from San Lazaro to Tacubaya, the Mexican Traction Company controls the old franchise to the Linea de Circumvelacion, which proposes to build from a point near the Plaza de Santo Domingo westward, crossing the tracks of the Mexican, the Mexican Central and the Mexican National roads by Tacuba, and thence to Tacubaya behind Chapultepec, and thence southward via Coyacan back to Mexico, making a complete belt of semicircularity. This double enterprise will not only be remunerative to the concessionaires, as all street-car lines, but also to shippers, for it will make possible the transfers on freight cars of freight from one road to another, or to different points of the city.

ISAAC M. HUTCHISON.

THE career of Isaac M. Hutchison evidences what a live American can do in Mexico. He came here fifteen years ago, a clever mechanical and railroad engineer, but with no more chances ahead of him than are enjoyed by the ordinary run of Americans coming to this country. Integrity, thrift and innate ability have enabled him, however, to steam ahead to his present position of well-deserved prominence, as an esteemed member of the American colony and an active, successful business man. His first work in Mexico was as an engineer on the Mexican Locomotive Works; thereafter, becoming agent for other prominent American concerns, he is now representative in Mexico of the American Locomotive Company, the St. Louis Car Company, the Chicago Pneumatic Tool Company, the Zeller Water Tube Safety Boilers, the Ideal Stationary Engines, the Morgan Lubricators and



HOUSE OF ESPIDOSA, SCHMEDLIN & CO., SAN GERONIMO.

the Clark Engine and Boiler Company. As Mexican agent of the American Locomotive Company, he furnished new equipment of locomotives to the Mexican National in its conversion to the broad-gauge system, and outfitted the Federal District Street Car Company with trolley cars from the St. Louis Car Company. The increasing use of compressed air in Mexico has enabled him to place large contracts for the Chicago Pneumatic Tool Company. Mr. Hutchison is a very ambitious man and in adding to the list of industries in Mexico he was associated in the organization of the American Traction Company, of which he was the first president, also in the development of the Tabasco Oil Exploration Company, a concern of which he is president.

Somewhat recently Mr. Hutchison obtained a concession for car shops in the Federal District, a big undertaking, which is now preparing to engage in active constructive work.

Mr. Hutchison has associated with him as manager of his interests Mr. Francis V. Lister, a young man full of energy, and who has also before him a bright business future.

TOBE BLUMENTHAL.

AMONG the prominent and popular manufacturers' agents in this capital is Mr. Tobe Blumenthal, whose office and headquarters are located in the Centro Mercantil building. Mr. Blumenthal came to Mexico some eight years ago, and laid the foundation of his present business, starting as representative of only a few American manufacturers of glassware and crockery. From a comparatively small business his institution has grown to extensive proportions, and he now controls a large portion of the glassware business of the republic, traveling as he does through the large centers of the country several times a year. With the exception of the State of Sonora, he is the general agent of the National Glass Company of Pittsburgh, manufacturers of fine table and other glassware. This concern owns and operates about a dozen factories, and is perhaps one of the largest of its kind in the United States. He is also the representative of the Fidelity Glass Company of Tarentum, Pa., flint-bottle makers, and the Root Glass Company of Terre Haute, Ind., whose factory turns out beer and soda bottles. He is also general agent for Mexico of the Highland Glass Company, Washington, Pa., manufacturers of sky-light and art glass, and the Opalescent Glass Works of Kokomo, Ind., whose specialty is opalescent art glass.

Among the potteries, he represents the Harker Pottery Company, East-Liverpool, O.; the Trenton Pottery Company, Trenton, N. J.; the Steubenville Pottery Company, Steubenville, O.; and for Mexico of the Hingham Pottery Company, Hingham, Mass.

Mr. Blumenthal also represents other American manufacturers.

Mr. Blumenthal's long experience in the country, his knowledge of the language, the people and their customs, combined with his genial nature, tactfulness and business habits, have not only popularized him and his principals but have enabled him to build up a fine and steadily increasing trade between American manufacturers and Mexican clients.

"TUCKER'S EXPERIENCES."

ONE of the best known and perhaps one of the most successful men dealing in tropical lands in the republic of Mexico is G. A. Tucker, who has for the past eleven years made this branch of work his only specialty. Mr. Tucker attributes his success to the fact that he went and lived on these lands himself for the greater part of these eleven years, and went through all the varying vicissitudes of a tenderfoot in learning from actual experience the requisites for permanent success in tropical agriculture, as in any other branch of business, the "know how" is the all-important item to be taken into consideration. Money can be made or lost in taking hold of and developing tropical lands; and that Mr. Tucker knows how is evidenced by the fact that he himself has succeeded in doing what he advises others to do. He commenced at the bottom and worked out his own salvation. In a neat little pamphlet which he has published called "Tucker's Experiences," he tells a few pertinent facts as to how he started, and what he accomplished. He says, in part:

"When I first came I cleared fifty acres of land now owned by the Ramie Company. The clearing cost about \$13 per acre. I began planting corn May 20; the yield was enormous, but owing to my lack of experience I lost half of my crop by not doubling down the corn during the rainy season in order to keep the ears dry. As it was, I managed to secure about twenty bushels to the acre. This was sold for seventy-five cents per bushel. This crop was harvested in September. I then laid the stalks on the ground in rows and cleaned an intervening space, which I intended to plant immediately in tobacco. October 1 I began setting out tobacco plants. By November 20 I had out over 250,000 plants. They occupied less than thirty acres. The tobacco matured in ninety days from the time it was set out, and netted me \$9 per arroba (36 cents per pound). When duly cured, it took 1000 of my plants to weigh 100 pounds. During the season of transplanting, the tobacco worms were particularly troublesome, and materially reduced the output. When the tobacco was sixty days' growth, I planted black Mexican beans between the rows, without any extra clearing or cleaning of the land. This was about the latter part of November. On about fifteen acres I planted corn between the bean rows as fast as the tobacco was harvested. On the remaining part I opened furrows and planted sugar cane. I brought the seed cane eleven miles in a canoe. The total cost of the cane field was \$25 per acre.

"In February I harvested 100 arrobas (17,500 pounds) of beans, which I sold on the grounds at 4 cents per pound. The fifteen acres of corn, by actual measurement, yielded thirty bushels per acre. They sold for \$1.50 per bushel. At the end of eleven months I had grown four crops, and my land was in condition to replant without further expense. The following year I planted the remainder of the tract in sugar cane at less cost than before, for I now had my own seed. The annual yield of sugar cane in this region is from thirty-five to fifty tons per acre, without cultivation. In

distilled liquor (75 test) this cane will produce 1000 hilla, or 480 gallons to the acre. In five years this aguardiente or Mexican rum can be sold in local markets at from 50 to 80 cents per hilla, and figures as to distillery products are made up of which I have made.

"I established a coffee plantation on 100 acres of land at an actual cost of less than \$1000, and of heaviest forest out of season, with an average of that implies, at a cost of \$70 per acre, and the difficulty of procuring the labor necessary to run the enterprises, nor would any man who had been in the country at any one time, nor did I pay more than 10 cents per day."

These practical suggestions at first have been through the actual experience of Mr. Tucker, explaining the possibilities of tropical agriculture.

Mr. Tucker has offices at No. 3, San Gerónimo, City, and is open to answer any questions regarding agricultural investments. He also deals in growing business in the loaning of money, and takes pleasure in the success of his clients, and the United States Bank of Mexico, and his reliability and general standing.

C. W. WHITEMORE.

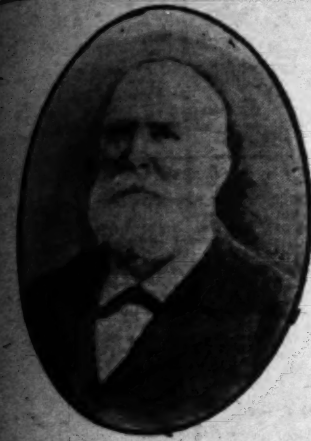
AMONG the Americans located in Mexico, few links between property and opportunity are more favorably known than C. W. Whittemore, Coliseo Nuevo, No. 408. He is a man of trust long resided in him by American money he has judiciously invested in the past eleven years. He was for a time the Singer Sewing Machine Company, in the republic, until he entered into the present real estate business. He has been a student of the conditions and opportunities of the country, and is well posted in that regard. His connection and friends from Sonora to the position to get information about the republic. He is ably assisted in his work by J. M. Alarco, a Spanish gentleman who is the University of Illinois. With the intelligence and capability of these two men, investors will find themselves in a position to get information about the republic. Mr. Whittemore's specialty is in the sale of land, and he has a large number of parcels of land for sale. He is a successful venture in Tampico and in Jalisco. The solid business man and promoter of Mexico will find Mr. Whittemore's knowledge of invaluable assistance, for he is a man who has nothing in common with the come up to the highest standard of business. Mr. Whittemore's New York references will bear full testimony to the secure proper information for purposes of business would do well to consult Mr. Whittemore, that his representations would be carried out, and, therefore, would be successful.

THE SONORA NEWS COMPANY.

ONE of the most unique business concerns in the Sonora News Company, which is owned by Messrs. C. Van Mourik and W. Van Mourik, from the start, and in 1903, was organized as a stock company, with a capital of \$100,000, and with the following officers: J. D. Van Mourik, secretary and treasurer; L. F. Poston, general manager; L. F. Poston, general manager; company operates many stores, as well as in Nogales, El Paso, Laredo, Tampico, Guadalupe, San Luis Potosi and Mexico. The office in Mexico is located opposite the depot, at No. 2 Calle Primera de la Republica, and with the following offices: J. D. Van Mourik, secretary and treasurer; L. F. Poston, general manager; company operates many stores, as well as in Nogales, El Paso, Laredo, Tampico, Guadalupe, San Luis Potosi and Mexico. The office in Mexico is located opposite the depot, at No. 2 Calle Primera de la Republica, and with the following offices: J. D. Van Mourik, secretary and treasurer; L. F. 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JOSE LANDERO Y COS.

THE MINING of the City of Mexico is a cluster of mining centers, the richest in the republic, consisting of the states of Mexico, Hidalgo, the mining center of the country. It has about sixty miles from the city, in the heart of the maguay country, environed by hills and brown, but honeycombed with mines. Pachuca is, with Tasco, the oldest mining center in Mexico. Its mines have been worked 260 years. In 1563 was discovered the process of amalgamation in which all the ores are made to yield up the



SEÑOR DON JOSE LANDERO Y COS.

...the very hacienda itself is still at work, in 1577, Medina made that discovery. The mining district around El Real del Monte, to the north and Santa Rosa to the south, have nearly three hundred mining properties. The ores are sometimes mixed with the ore. The ores are reduced by the "barrel" process, by the "patio" process, and by "amalgamation," and by the "patio" process. Before modern hoists and machinery were introduced into Pachuca, the mines were operated by the old fashion, the metal being brought up in bullock skins and ropes of long ropes of maguay fiber, wound about a large

...office plantation on 200 acres of land, less than \$5000. I cleaned out of season; with all the cost of \$70 per acre. I have been doing the labor necessary to build any man who treats his land as I did not employ more than one man, did I pay common-labor

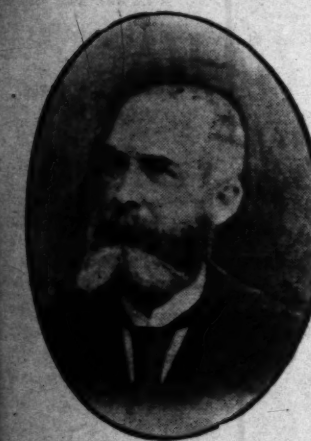
...suggestions at first hand, the actual experience will be the stability of tropical lands. Offices at No. 9 Gante street, answer any questions regarding the loaning of money for business. He takes pleasure in referring to the States Bank of Mexico, and its general standing.

W. WHITTEMORE.

...Americans located in this country, property and purchase in the Mexican opportunities. He is known than C. W. Whittemore, 408. He is a man well known in him by American capitalists, who have invested in this country. He was for a time manager of the Pachuca Electric Company, and entered into his present field of business. He has always been in conditions and opportunities in that regard. Mr. Whittemore is a friend from Sonora to Yucatan, and is able to assist in his Mexican business. With the combined ability of these two gentlemen, and themselves in excellent condition, is investigating and making investments. Many thousands in Mexican investments are made in the character of the men at the time. Because of lack of correct information, are different from what might be a profitable venture in Tampico might not be a business man and prospective. Mr. Whittemore's knowledge and assistance, for he is a solid business man, nothing in common with men of the highest standard of honesty. Whittemore's New York and his full testimony to this. Information for purposes of investment, well to consult Mr. Whittemore. Investigations would be carefully made, therefore, would lead to success.

HIDALGO ELECTRIC COMPANY.

...worked by mule power. It is almost impossible to tell how the yield of the Pachuca mines; any description of the fabulous. Under the old Spanish law, the output went to the King, and under the new law one twenty-fifth belongs to the government. The mine, it is said, in thirty years produced \$100,000, and paid \$500,000 per share in dividends prior to 1884. The Landero y Cos., who is affectionately styled the "Pachuca," gray bearded, over six feet in height, with a commanding appearance, and yet extremely modest and retiring, is a picturesque personality, and a multi-millionaire. He is a man of great energy, and he enjoys life as he goes along, and has a beautiful home in this city. He was born in Jalapa in



SEÑOR DON CARLOS LANDERO Y COS.

...and took hold of the Real del Monte mines in 1873. This was one of the most extensive mining propositions in the country. The Real del Monte are located in and about Pachuca, and several hundred feet higher, on the crest of the mountains, and the hills all around are full of tunnels and adits. It was here that the English Real del Monte Company took possession of the mines when Pedro Regla, the first Count of Regla, had extracted his millions of wealth and spent so freely. He was then a man of means, but he conceived the idea of draining the mine by means of an adit one mile and a half long. From 1750 to 1762 he toiled, until he reached the bottom shaft and struck his bonanza. The English company managed to absorb \$20,000,000 capital in twenty years, but they did prodigious work, which has since been the benefit of their successors.

...Landero y Cos took hold of the Real del Monte mines in 1873. Pachuca had a population of 10,000; it now has upwards of 40,000. The Real del Monte mines own about 1000

...pertences, greatly undeveloped until they were put in shape by Landero y Cos and his associates. These mines treat and ship about 1400 tons of ore weekly. The company has 254 shares, and they are now worth \$800 a share. The president of the board of directors is the aged millionaire, Luis Alvarado; other members of the board of directors are Felix Cuevas, Ilmanton, Alejandro Escandon and Santiago Pardo; the general manager of the mines is Carlos Landero y Cos.

The mines work from 6000 to 7000 men. The high grade ore is shipped to the smelters and the low grade is treated by the "patio" process, which is an old and very interesting process. It is the oldest Mexican system of extracting silver from its ore. The ore is finely crushed by the regular process, and is then run out into the "patio," where it is spread out in great mud-pies, and this mud, mixed with salt, quicksilver and copperas, is thoroughly kneaded by droves of horses and mules driven through it. This custom was introduced from Peru in 1732. The establishment now works about two hundred horses and mules in its patio process. The ores at Real del Monte that are reserved for the patio process average about one to one and a fifth kilograms of silver per ton. The Real del Monte mines have also a mill called the Loreto, where sixteen Chilean mills are used. About 800 tons per week are treated by the patio process.

The Landero y Cos interests are so extensive that they are Pachuca. He is president of the famous Santa Gertrudes mine, a mine whose marvelous productiveness was made possible by the genius of the Cornishmen. This mine works 1500 men and treats 900 tons weekly by the patio process, besides which there are fourteen Chilean mills at work. The company takes good care of its men, paying them liberally, with handsome bonus in case of good work. This mine has gone right on producing silver, in spite of all the depreciation of the white metal since 1873.

Mr. Landero y Cos represents the old school of Mexicans, conservative, careful, and uniformly successful. When he took hold of the mines in Pachuca everything was in bad shape, and about to close down. He introduced in 1873 the "partido" system, namely that of giving the miners under him one-eighth of the ore. They could sell to the company or not, as they chose, at agreed prices. It was a highly a communistic plan, and saved the mines from closing down; the same system holds today in Pachuca.

The subject of this sketch was Minister of Finance under President Diaz for two months, during 1877, and is now a member of the Monetary Commission. He is known as a sturdy financier. He speaks English perfectly, having been in England in 1875, and toured Europe in 1890. Besides his mining interests, he owns a ranch in Zacatecas, covering eleven sitios, and another in Hidalgo of 14,000 hectares, and is also president of the Hidalgo Electric Company, which supplies power to the mines and mills of Pachuca. This company was promoted in 1894 by Rafael Arozarena, his son-in-law. The capital stock at first was \$700,000, but is now being augmented to \$1,000,000.

Messrs. Sebastian Camacho and Ignacio Rivalo of this city, with Landero y Cos constitute the board of directors of this company. The par value of the stock (7000 shares) is \$100, selling now at \$120. The power is generated from the Regla River, just below the Regla station, twenty-six kilometers from Pachuca. That point is worth a long journey to see. There is a basaltic formation, besides his mining interests, he owns a ranch in Zacatecas, covering eleven sitios, and another in Hidalgo of 14,000 hectares, and is also president of the Hidalgo Electric Company, which supplies power to the mines and mills of Pachuca. This company was promoted in 1894 by Rafael Arozarena, his son-in-law. The capital stock at first was \$700,000, but is now being augmented to \$1,000,000.

This is but another example of the solid business enterprises in which Landero y Cos is interested.

BANK OF LONDON AND MEXICO.

ESTABLISHED forty years ago, as a branch of the London, Mexico and South America Bank of London, the substantial, firmly financed local concern, known as the Bank of London and Mexico, has been a bulwark among the fiduciary institutions of the republic.

The Bank of London and Mexico was established at a time when every man was his own banker; when property did not have the safeguards it has today in the magnificent republic of Mexico; revolution was in the air, and this country not only had a poor financial standing, but was harassed at home by adventurous and revolutionary politicians. Mexico was making for ultimate independence, although suffering from intestine strife and foreign intervention, and there were no banks, no establishments of local or foreign credit, and people operated either through private concerns or their foreign remissions and collections, or direct through letters of credit and remissions of specie. In such a needy situation the Bank of London and Mexico entered, fully equipped with the finest financial machinery known at that time. It soon commanded the respect and patronage of the wealthy and influential Mexicans, who saw that this banking institution provided a substantial and safe medium for their transactions. A full statement of the condition of this bank appears elsewhere in this issue.

The present bank separated from the parent institution in 1889. In that year the capital stock was \$1,000,000, which sum was increased in 1892 to \$3,000,000. In 1896 the capital stock was \$10,000,000, and in 1900 \$15,000,000, its present capital. This vast sum is supplemented by a reserve fund of \$6,000,000.

The bank's quarters are located at Calle Lerdo No. 3, one of the oldest houses in the city, and in which the American Legation was located in 1876. The bank has gradually increased its office floorage until it now occupies more than half a block. The interior is handsomely and commodiously fitted up for the dispatch of business. A general banking and trust company business is transacted, and the concern is conducted on conservative principles. Drafts are bought and sold to all points and the collection of commercial paper, interest, coupons, bonds and dividends is undertaken, prompt and accurate service being guaranteed. There is a spirit of accommodation to depositors and patrons, a rule that is strictly adhered to. No bank in the city or country is better able to handle the business of its correspondents and to protect their interests than the Bank of London and Mexico. The bank operates branches in nearly all the prominent and important cities of the republic, and the Mexican government, in payment of taxes, receives only the bank notes of the National Bank and the Bank of London and Mexico. It has besides, correspondents in London, New York, Paris, San Francisco, St. Louis and other important foreign points.

Some of the foremost financiers of Mexico are to be found upon the directory of the bank, and they represent the best interests of the country. The president of the bank is Mr. Thomas Braniff, one of the best-known financiers in this country, and who is also president of the International and Mortgage Bank and many other of the larger industrial enterprises of the republic. Among the directors are Manuel Gonzalez Cosio, Francisco Espinosa, Rafael Donde, H. C. Waters, Jose Sanchez Ramos, Leon Sigoret, Remigio Noriega, Enrique Tron, Alfonso Michel, Luis Barosso, Valentin Elcoro. The general manager of the bank is James Walker, and the assistant general manager is F. Yarns. Mr. Walker, although a young man, is one of the most clever, clear-headed banking men in the country. He succeeded to his present position upon the resignation of H. C. Waters. He is rarely endowed with ability and judgment, and careful prudence, born of long and tried experience. He has been associated with the bank for the past fifteen years, with H. C. Waters, the former manager, to whose foresight and energy much of the prosperity of the bank is due. The keen and sagacious present management is appreciated and reflected in the continued success and growth of the bank.

BENJAMIN BARRIOS.

THERE is a growing tendency among the rising generation in Mexico to acquire the language and the business push of the Americans. The Mexicans are realizing that, for initiative genius, daring development and successful demonstration in all lines, commercial and industrial, the American stands first in the unnumbered army of the world's workmen. They have seen the practical side of American enterprise demonstrated in the opening of mines that have been dormant, the building of railways that have been resurrected from the invasion of American capital. This transformation would have been impossible but for the acquiescence of the Mexicans, who are now co-operating heartily in the development of their country, and are even joining the Americans with their hoarded wealth in its industrial transformation. Companies organized with Mexican and American capital are not uncommon, and are increasing every day.

To give authentic information concerning safe ventures in this country, carry out all legal requirements in connection therewith, and aid in the judicious investment of American capital, is the purpose of Mr. Benjamin Barrios, a young

lawyer and successful promoter in Mexico. He was born in this city in 1876, and was admitted to the bar in 1899, studying law in the Government School of Jurisprudence. He is the son of Gen. Pedro Barrios, a celebrated Mexican officer, and though of high family standing, is so independent that he has engaged in business for himself, with a widening sphere of opportunity. He is secretary of the Cigarrera Mexicana, which, next to the famous Buen Tono, is the largest cigar factory in the republic, turning out about 4,000,000 cigarettes a day. He is also secretary of the Yucatan Chewing Gum Company, which sends to the United States, for the use of the fair sex principally, immense quantities of this Mexican article. He is concessionaire for the Rio Seca Railroad Company, now building a line through the unexplored districts of Tabasco. Mr. Barrios is attorney for the Utah and Mexican Rubber Company, operating in Southern Mexico, also for the Tula Iron Works, for the Pullman Company, and for other big American concerns. He has just returned from England, where he organized the San Isidro Iron Mines Company, with a capital stock of \$500,000 gold. His splendid linguistic ability (for he speaks English, French and Italian, besides his own smooth mother tongue,) his progressive ideas and his untiring energy have brought him into close relationship with a large American clientele. He knows the laws of both countries, being a practicing lawyer, and having had experience, too, in both countries. Mr. Barrios stands well in Mexico, has behind him the very best references, and is always able to undertake business in the above lines for American investors.

Mexico City is noted for its fine driving horses. They are driven without check-reins, but usually have their tails docked.

The volcano of Popocatepetl has been extinct for 300 years.

HOTEL FRANCE ORIZABA

THE FINEST HOTEL IN MEXICO...

Beautifully situated in charming Orizaba, this Hotel is most modern in its appointments and forms an ideal place for rest and recreation. The climate of Orizaba, situated at an altitude of a little over 4000 feet, is ideal. It is mid-way between the table-lands and the tropics.

Near by are found coffee and sugar plantations and all the wealth of the tropical verdure, while the city itself is surrounded by the evergreen hills that enclose the beautiful valley.

On the line of the Mexican Railway.

LARGE SUNNY ROOMS
PERFECT CUISINE
ALL MODERN CONVENIENCES

HOTEL FRANCE
LOUIS LEROY, PROP.

Banco de Morelos, S.A. Cuernavaca

(MORELOS)

Branch at Acapulco

(GUERRERO)

Organized under the Mexican Bank Law; transacts a general banking business; receives deposit accounts subject to checks and interest allowed. Foreign Exchange bought and sold at the ruling market rates. Special facilities for transaction in the States of Morelos and Guerrero.

THE MEXICO ELECTRIC TRAMWAYS (LTD.)

THE Mexico electric tramway system, conducted as it is upon the most modern and approved methods, has probably no superior in efficiency of service upon the American continent. Historically the street car system of Mexico ranks among the old-time institutions. The first concession was granted to Ramon Guzman and associates, calling for the operation of four lines of tram cars. It commenced in 1872, and run from this city to Tacubaya, Tlalpam, Popotla and La Piedad. On Christmas Day, 1877, the reorganized company started to handle the four lines. The Atzacapotzalco-Tlalpam line was built under the concession of 1882, also the Chapultepec branch to the great Cemetery of Dolores, where it is estimated at least 100,000 persons have been already buried. The Guadalupe connection was laid pursuant to a concession of October 10, 1882, and the line to the Penon baths on the 20th of the following May. The passengers carried in 1873 were 3,760,653; in 1893, 23,000,000, and in 1902, 32,000,000.

The trackage now under operation amounts to 250 kilometers, with a great deal still under construction and still more projected. The rolling stock consists of about six hundred cars, including motors, trolleys, freight cars and fun-

Plaza, with mules that connect with the steam road. This steam road is ten kilometers in length, with an outside terminus at Indianilla. It is used almost entirely for freight except on fiesta days, when the cars are crowded with people flocking to the hills. The principal outside points reached by the company's lines are Chapultepec, with its marvelous park and forest, and historic castle; Tacubaya, with its great gardens and palatial houses; San Angel, with its immense orchards; La Piedad, with the handsome French and Le Piedad cemeteries; Coyoacan, with the oldest buildings on the American continent, whose interest only increases with age; Tlalpam, the curious little rocky city situated on the old Royal Road to the sugar lands of Morelos; the Vega canal, with its quaint canoes and steam launches trending to Lake Xochimilco; the pleasure resort of Penon, with its thermal baths; the sacred shrine of Guadalupe; the picturesque villages of Popotla, Tacuba and Atzacapotzalco.

THE UTAH-MEXICAN RUBBER CO.

COMPOSED of Utah capitalists, has a plantation of ten thousand acres in the municipality of Cardenas, State of Tabasco, about forty miles from San Juan Bautista, the State capital. This section of Tabasco, known as the Rio Seco region, is one of the most productive in the entire republic. With a soil which averages ten feet in depth, a rainfall of about 180 inches a year, and a tropical temperature, it is possible to raise anything which can be grown in the tropics. Wild rubber trees of the Castilla variety are found scattered over the place, as well as wild coffee and cacao, and an abundance of tropical fruits.

The company is engaged in planting rubber on an extensive scale, but has thousands of coffee and coconut trees in a fine state of cultivation.

One of the hardest problems which confront the Mexican planter is that of labor. This has been solved by the Utah company in the importation of a trainload of people from the State of Michoacan. A village called Santa Teresa has been established on the company's lands, with a company storehouse and a market place, into which the people swarm on feast days. All this has been accomplished under the hustling management of Noble Warrum, seconded by the resident superintendent, William C. De Wit, a Hollander of tact and experience. It is the purpose of the company to make this a model plantation, and it has an abundance of capital, energy and experience behind it. The president of the company, Hon. John Henry Smith, is one of the most

prominent authorities of the Mormon Church, president of the Transmississippi Congress last year, and president and treasurer, Hon. W. S. McMillan, one of the leading bankers and financial authorities in the West.

Of the other directors, Hon. Joseph P. Smith, president of the Mormon Church, an organization which has established a record as agriculturists and commercial men, no people in the world. Moses Thatcher is a well-known Thatcher Bros. Bank; James H. Smith, Secretary of the State of Utah; Thomas H. Smith, a sugar king; and the others are connected with agricultural and commercial institutions of Salt Lake.

Benjamin Barrios, the attorney of the company, is one of the young leaders of the Mexican bar, a graduate of the United States, Maj. Richard Barrios, a graduate of West Point, and won honorable mention in the Philippine campaign.

The company expects to plant at least 500,000 rubber trees in rubber, selecting the very best land for this purpose. As Castilla trees are found in Tabasco, on account of the soil, the company expects to reap large returns on its investment within six years.

IN ORIZABA.

T. A. KENNION, whose advertisement appeared in this issue, has opened offices in the city of Orizaba for the handling of all legitimate claims of the United States, with especial reference to agricultural and otherwise. No better point could be found in Mexico, as it is in the heart of the southern tier of States, with splendid shipping facilities. In and around Orizaba are the finest and fertile lands, brought up to the highest cultivation.

Mr. Kennion is admirably equipped to take up as he has spent the best part of his years in Mexico and Mexico, speaks the language like a native, and first hand, from actual experience, the nature of the propositions in which he deals. His knowledge of the lines of grazing and cattle lands, but his judgment is sound on all matters pertaining to Mexico.

Letters of inquiry may be addressed to T. A. Kennion, Orizaba, Vera Cruz, Mexico, and will receive courteous attention.



TYPE OF MODERN STREET CAR.

eral cars. The power plant consists of two 500-kilowatt generators, driven by McKintosh & Seymour horizontal compound engines. There are also two units of 425 kilowatts driven by similar engines of same make. There is generated a continuous current of 3600 electric horse-power. Besides these engines the company has in operation a storage battery of 1600 kilowatts, which is stored during the hours when traffic is light. The car barns are commodious. The overhead or trolley system of these tram lines may be briefly described as follows: The overhead wire, whose extremity is connected with the electric generators, furnishes the current; the car carries a metal bar in its upper works, which, by means of a brush, establishes a current with the overhead wire. A part of the current comes down on each side of the car, along the conductors, penetrates into the motors which the car carries, and escapes by way of the wheels and springs into the generator. Other parts of the current continue along the wheels, so as to furnish power to the other cars. Each car carries two motors of thirty-five-horse-power each. By 1893 work was practically completed on the rails for 1600 kilometers, and the following year the cars were in operation. The old light-weight rails were replaced by new eighty-five-pound rails and sixty-foot girders. The street tram system is operated under the name of "Compania Limitada de Tranvias Electricos de Mexico."

In 1896 the tramway company which operated in the Federal District under the name of "Compania Limitada de Tranvias Electricos de Mexico," was transferred to Channing F. Meek, on behalf of Julio Werhner and Alfred Beit, of London, the latter considered one of the richest, if not the richest, man in the world. In 1900 this company entered into contract with the Mexico Electric Tramways (Ltd.) of London, conveying to the latter from January 1, 1901, definitely the exclusive right to all the company's rights, privileged and property. While the lines are operated by the London company, they still remain the property of the Federal District Railway Company. This latter company is capitalized in \$10,000,000, but the shares issued amount only to \$5,000,000. The London company has developed this big business proposition to its present excellent footing, and has perceptibly increased the revenue. During the past year the total number of fares was 22,000,000, and this year will probably be 25,000,000. About two-thirds of this number are second-class fares. Second-class rates average two-thirds of first-class rates. All rates starting and ending within the city limits are 6 cents, and there are no second-class passengers carried within city limits. The rate for removing a car of household goods is \$4.50 per trip. Funeral car rates vary from \$4.50 to \$15.00, according to style required. First-class trail car for funerals charged for at the rate of \$12; second-class, \$5. The company has on its employment list 2300 men.

The officers of the company are Hon. Chondos S. Stanhope, president; Joaquin D. Casasus, government representative; Capt. Porfirio Diaz, Jr., representative of the London board; Ch. Clegg, general manager.

The company owns also a small steam road called the Valley road, which runs to the picturesque suburb of Tacubaya, Mixcoac and San Angel, having a terminus at Tlalpam, a charming spot in the western hills. The city terminus of the Valley road is on Calle Ocampo, near the

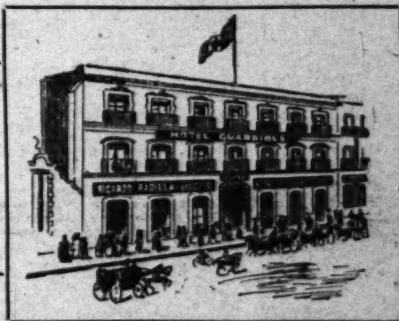
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MEXICO CITY

Newly
Refurnished
and
Re-fitted.

Hot and Cold
Baths

Free for regular guests.



Everything
Modern
51 Elegant
Rooms
With hot and cold
running water
Electric Lights

THE FINEST AMERICAN HOTEL IN MEXICO.

NOTE—This hotel is situated immediately opposite the Plaza de Guardiola and the Mexican Central Railway ticket office and is in the HEART OF THE AMERICAN BUSINESS CENTER. Convenient to all places of amusement and lines of travel.

AMERICAN PATRONAGE SOLICITED AND APPRECIATED.

MANUEL DAVILA MADRID, Administrator

HOTEL GUARDIOLA

.....THE HEART OF THE ISTHMUS.....

Six great tracts of Tropical Lands that will be sold at bargain prices.

Equally suitable for immediate development or speculation.

We offer for sale during the next sixty days, at bed-rock prices, and on easy terms, 647,444 acres of the best Tropical agricultural lands, situated in the Isthmus of Tehuantepec, consisting of six separate tracts, ranging in area from 24,000 to 215,000 acres, convenient to water or rail transportation. Surveys are complete, boundaries defined and titles are in perfect condition; consequently there will be no delays in making transfers.

We also have tracts of 1,000 acres and upwards, situated on the Tehuantepec Railroad and in the Valleys of the Colorado and Trinidad Rivers, where 50,000 acres have been sold by this Company for plantations within the last four years, during which period prices have advanced on an average of 50 per cent per annum.

Due to constant increase in the betterments of rail and water transportation facilities, harbor improvements at Coatzacoalcas and Salina Cruz, and constant augmentation of tropical plantations in this favored section, the advance in land values for the next few years will be still more remarkable. Capitalists seeking investments in Mexico should not delay an investigation of this field while values are still low, and before the monetary basis is changed from silver to gold, which will stimulate confidence by guaranteeing stability of exchange.

Correspondence Solicited.

The International Land and Colonization Company, Ltd.

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Capital \$100,000.00.

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W. E. F. WRIGHT, Secretary.
A. J. PORTER, Gen'l Mgr. and Treas.

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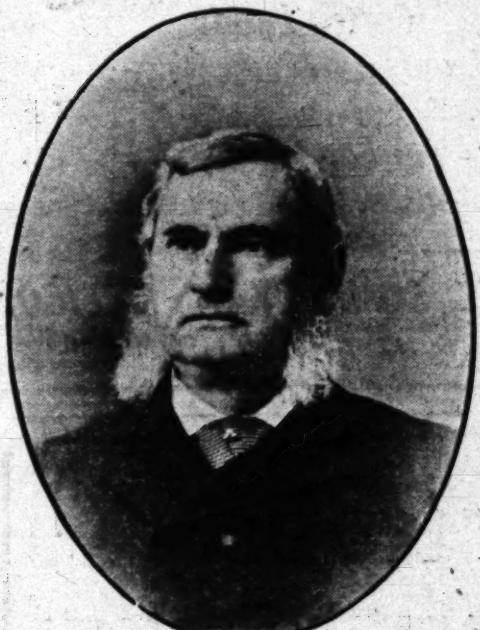
It needs fertilizers, as is the case with the tobacco in Cuba. The tobacco costs from 12 to 15 cents, and sells from 80 cents to \$1 per pound. It is estimated that at least 100,000,000 plants can be easily cultivated in that section of the country.

The Leading American Hotel of Northern Mexico.
Conducted on American Plan. Fronting on Main
Plaza.
American Cooking. Clean, Comfortable Rooms.
Polite Service. Reasonable Rates.

GEN. JOHN B. FRISBIE.

FAMOUS among the many Californians in Mexico is Gen. John B. Frisbie, a man who, though hovering about the seventy-fifth milestone of life, is still vigorous and engaged in business activities. As men reckon, Gen. Frisbie is in the sunset of life, whose clouds have settled upon him; but gray hairs are not always a sign of age; he seems as young today as when he came to Mexico a quarter of a century ago to seek his fortune and find it, as he did.

Gen. Frisbie is by birth a New Yorker, though he is called a Californian, for in early manhood he went westward and located in California. He left New York in 1845 as a captain in the United States Army, his command forming part of a full regiment of soldiers sent by the American government to California in connection with the war with Mexico—a war which he himself now designates as one of conquest, but he adds that the end justified the means, and it was, after all, a good thing for Mexico. Had not the American government taken California and linked it to the eastern and middle portions of the United States by rail, the railroad system of Mexico would not have been possible. The American fleet in which Capt. Frisbie sailed was composed of four transports, sailing vessels, for there were no steamships on the ocean, although Robert Fulton's first steamer, the Clermont, in making its famous voyage from New York to Albany in 1807, had marked the invention of steam navigation. With the exception of the Baltimore and Ohio (the first railway built in the United States) and the New York Central running to Albany and Buffalo, there was scarcely any steam railway in the United States. The American fleet bound for California occupied six months in rounding Cape Horn, reaching California in 1847, and occupying the Coast in the name of the American government. The troops that crossed the continent by land also took nearly six months for their



GENERAL JOHN B. FRISBIE.

trip, whereas today the great hissing giant called steam carries passengers across the continent in about five days. An English squadron which was at Valparaiso heard of the proposed attempt of the Americans to seize California, and sailed northward to raise the British flag on that coast, but the American fleet outlasted the English, and when the English admiral reached California, he saw, much to his regret, the Stars and Stripes flying high, and he sailed away.

When Capt. Frisbie reached Monterey, that place had only 1000 inhabitants and it was the capital of that province; although Los Angeles was rather a larger place. Both old mission settlements. What is now San Francisco was then known as "Yerba Buena," a little straggling village of 300 people, fronting the glorious Californian bay, where now stands a magnificent metropolis. The American post was set up at a point about three miles from "Yerba Buena," and called San Francisco. California had not yet told her golden secret to the world, for gold was not discovered until 1848, and the State was known as a productive cattle country; life was a lazy luxury; immense land estates rested idle and undeveloped, save for the cattle industry, and that required no particular exertion on the part of the Mexican population. Here and there were hints of the marvelous productiveness of that coast line, for the old padres affected grape culture and fruit growing to some extent.

The Mexican peninsula, though in area considerably longer than Great Britain, was in points as narrow as Scotland, and from end to end was ridged with mountains, sometimes 5000 feet above sea level. Practically California was in travail. Col. Fremont, the American, who had been at the head of an exploring expedition in the Rockies, had driven the Mexicans southward. Monterey, Los Angeles and other points were captured by Commodores Sloat and Stockton in July, 1846. In December, Gen. Kearney assumed command of the Army of the West, having marched from Fort Leavenworth, Kan. On the way he occupied Santa Fe and detached Col. Doniphan to strike southward to Mexico. On Christmas Day Doniphan defeated 4000 Mexicans under Gen. De Leon at Bracito, and in the spring of 1847 he joined Taylor's army. The American army, in which Capt. Frisbie was an officer, upon occupying Monterey, took down the Old Bear flag and in its place hoisted the Stars and Stripes of the American republic, taking possession of the upper part of California.

Gen. Frisbie, who had been raised in rank on account of meritorious conduct in the Mexican War, made his home in California, opposite San Francisco, and lived there for thirty years. He laid out on the bay the town of Vallejo, a town which he named after Miss Vallejo, member of a distinguished Californian family, whom he married. The town, which has now a population of nearly 9000, contains the old Frisbie homestead, and Gen. Frisbie has industrial interests located there, and Mrs. Frisbie spends part of each season in that charming place.

Gen. Frisbie came to Mexico in 1878, and is one of the survivors of the group of the old-time colony of twenty-five years ago, and which included James P. Holliman, James J. Lohse, Maj. Robert B. Gorsuch and Thomas Braniff, all of whom are alive with the exception of Mr. Holliman.

The most successful mining venture undertaken by Gen. Frisbie in Mexico has been the gold proposition operated by himself and his associates at El Oro. The mine which he took up was an old mine owned by Senor Madrid, a Spaniard. It yielded low-grade ore; there was no machinery to work it, and Gen. Frisbie installed a reduction plant for that purpose, a small mill which operated for ten years at a dead loss; he could not advantageously handle ore that ran under \$12 per ton, but after associating himself with J. B. Lusk of New York, he was able to operate the mines on a larger scale, and now they do not handle anything in their big mills under \$16 ore. Recently Gen. Frisbie sold out his holdings in El Oro to an English company for \$1,000,000 gold.

Gen. Frisbie has three very interesting industrial propositions, the details of which he handles actively. Two of these are dairy farms, which were started about eighteen months ago near Atzacapatsalco, a charming suburb of this capital. They are called Rosario and Cariaga, and cover about thirteen hundred acres; the daily output of milk is 1500 liters. Gen. Frisbie also has a sugar plantation at Atlixac, in the State of Guerrero, covering 40,000 acres, or ten leagues, of sugar lands. A railway runs through this plantation. This big enterprise was started three years ago, and the plantation has just taken in its second crop. The crop in the first year was 50,000 arrobas and in the second year 100,000, while the crop next year will be probably 150,000 arrobas. There are large and modern mills for the elaboration of the sugar product. It costs on the plantation \$1 per arroba to raise.

NOW IS THE TIME TO INVEST IN MEXICO.

I HAVE or can obtain for you any class of investment you wish, in any part of southern or central Mexico. Write me, giving full particulars of your requirements and the amount of money you wish to invest.

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South of the Rio G
Everything for
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THE MEXICO MINE AND SMELTER SUPPLY CO.

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OF ALL KINDS.

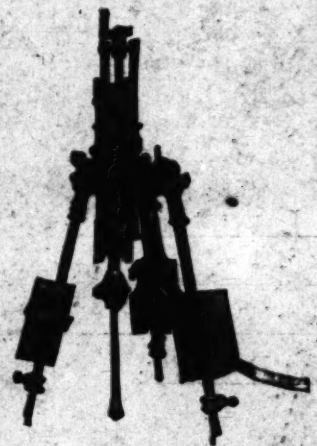
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AGRICULTURE (cont.
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FIRST EDITION PUBLISHED DEC. 19, 1903.

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YEAR.	COPIES.
1890 - -	6,766
1891 - -	8,389
1892 - -	9,938
1893 - -	11,715
1894 - -	13,193
1895 - -	14,470
1896 - -	17,881
1897 - -	18,058
1898 - -	23,183
1899 - -	25,749
1900 - -	26,824
1901 - -	27,295
1902 - -	30,403
1903 - -	35,606

The Los Angeles Times.

Foremost exponent of the GREAT SOUTHWEST, the richest, the most rapidly-expanding region of the United States today, which stands beckoning to millions in the East and beyond the seas.

THE TIMES is devoted to the sound exploitation and development of this vast region beyond the Rockies, which touches the Southwestern Pacific shore.

WHAT "THE TIMES" STANDS FOR.

The Times stands for industrial freedom; for the right of every citizen under the Constitution and the law "to pursue, undisturbed, any lawful occupation of his choice in a lawful way," and to be protected in that right by the whole power of the State and of the nation, if need be. It denies the right of any labor combine whatever to take from the citizen this inalienable right, guaranteed by the Supreme Law. It deplores the needless industrial paralysis, commercial stagnation and widespread individual distress which have too often been brought upon the country by the lawlessness, proscription, despotism and stupidity practiced in recent years by uncontrolled labor combinations, and holds that the true remedy is Industrial Freedom and obedience to law. It has long proclaimed and defended these correct principles, winning favor and material success by its course.

It is not so much against organized labor as against organized lawlessness. It aims to be a journal for the "captains of industry," and the unnumbered free workers, agricultural and mechanical, who, together, must be the hope of the material nation in the final resort.

The great specialty of THE TIMES, however, is the accurate, lucid, intelligent and persistent exploitation of the marvelous natural resources of the splendid regions of our country to whose interests it has devoted its energies for twenty years. It is an encyclopedia of reliable information—an "eye-opener" for countless inquirers in other portions of the country and of the earth.

SIZE—Daily, 12 to 20 pages; Sunday, 60 to 72 pages and a Sunday Magazine of 32 pages, which is in itself a storehouse of facts and attractive, up-to-date literature, with a peculiarly Californian and Southwestern "outdoor" flavor.

TERMS—Daily and Sunday, 75 cents per month, \$2.25 per quarter, \$9.00 per year. Sunday issue only (including magazine) \$2.50 per year by mail.

SAMPLE COPIES FREE.

HARRISON GRAY OTIS, } The Times-Mirror Company,
Editor and Genl. Mgr. } Los Angeles, Cal.

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The figures given below show the average daily advertising in THE TIMES, stated in each day of January of each year.

For the past two years the average volume of advertising has been greater than any other newspaper in America.

YEAR.	COPIES.
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1891 - -	
1892 - -	
1893 - -	
1894 - -	
1895 - -	
1896 - -	
1897 - -	
1898 - -	
1899 - -	
1900 - -	
1901 - -	
1902 - -	
1903 - -	

THE TIMES has a larger circulation in the Republic of Mexico than any other newspaper printed in the United States. THE TIMES is the only newspaper in the United States that maintains its own exclusive news service, with a representative in the City of Mexico.

THE TIMES prints more news on Mexico and her growing American interests than any half dozen newspapers combined, in the United States.

No important enterprise or event occurring in the Mexican field is omitted from the columns of THE TIMES.

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A big newspaper—60 to 72 pages in size, containing the full Associated Press Report, scores of special dispatches, articles and the advertisements of 750 to 1000 Los Angeles merchants, including over 4000 separate classified advertisements. The Times also circulates with its Sunday edition a 32 page illustrated Magazine containing many graphic illustrations of the Southwest, and other interesting reading matter. The price for single copies is 5 cents. By mail, per year, \$1.25; three months, 65 cents. Sample copies free, upon application.

Times

IT
IS.

last five years than any
are citizens of wealth
ly an honest, independ
has been in the pa
growth of the section
splendid people, it ha

Advertising

The figures given below show
average daily advertising per
THE TIMES, stated in columns
each day of January of the
named.

For the past two years this
journal has regularly carried a
average volume of paid adver
than any other newspaper in
America.

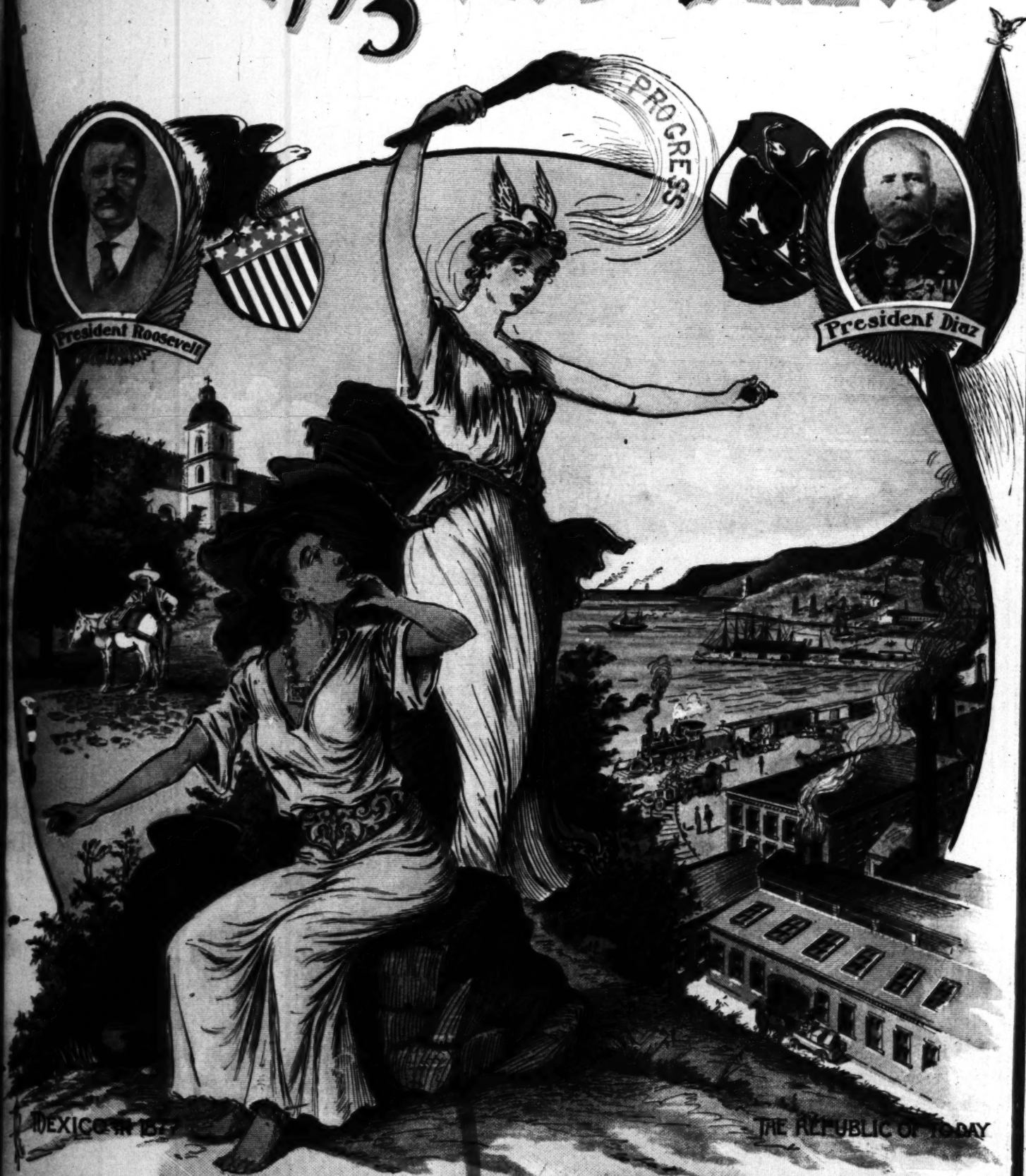
YEAR	COLUMNS
1890 - -	272
1891 - -	245
1892 - -	303
1893 - -	331
1894 - -	361
1895 - -	381
1896 - -	461
1897 - -	451
1898 - -	501
1899 - -	511
1900 - -	591
1901 - -	561
1902 - -	731
1903 - -	981

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ws service, with a spe
y half dozen newspapers
s of THE TIMES.

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parate classified adver
g many graphic sketches
mail, per year, \$2.00

Los Angeles Times



Mexican Number

THE NATIONAL RAILROAD CO.



AQUEDUCT OF JAJALPA, MEXICAN NATIONAL RAILROAD

of MEXICO

OFFERS

... TO TRAVELERS
... FROM THE
... UNITED STATES

DISTINCT

ADVANTAGES



THE CHAPEL OF THE HOLY WELL OF GUADALUPE

Six Hours Shorter

BETWEEN St. Louis, Kansas City, Chicago, New York, Boston, or any Point Throughout the Central, Southern, Eastern or Northern United States and Mexico or any Point in Mexico



MEXICAN NATIONAL R. R. STATION, SAN LUIS POTOSI

Standard Gauge Through out

The roadbed of the NATIONAL RAILROAD has just been re-ballasted, and the old narrow gauge portions have been Changed to Standard Gauge. New and heavier steel has been laid, and NEW EQUIPMENT has been installed, that this road is now on a par with the best railroads of the United States.

THROUGH PULLMAN SLEEPING AND BUFFET CARS
DAILY BETWEEN ST. LOUIS AND MEXICO CITY

AN ASSISTANT, PAID BY THE COMPANY, IS KEPT CONSTANTLY AT THE MEXICAN BORDER, TO BE OF SERVICE TO PASSENGERS IN CHANGING MONEY, PASSING THE CUSTOMS HOUSE AND TO ACT AS INTERPRETER WHEN NECESSARY.



VIEW OF LAKE PATZCUARO FROM LOS BALCONES.

SEND FOR A FINE ILLUSTRATED BOOK, JUST ISSUED, CALLED

"Highlands of the Tropics"

IT IS FULL OF INTERESTING INFORMATION ABOUT MEXICO, HER AGRICULTURE, MINING AND INDUSTRIAL SOURCES, AS WELL AS HER TRAFFIC FROM A HEALTHY TOURIST STANDPOINT, SENT

FOR RATES, MAPS, TIME TABLES AND FULL INFORMATION REGARDING MEXICO, WRITE TO OR CALL ON THE UNDERSIGNED

W. F. PATON, General Eastern Agent, { Room 1518 Bowling Green Building, 11 Broadway, New York
H. J. FALKENBACH, Commercial Agent, Room 930 Park Building, Pittsburgh, Pa.
G. R. HACKLEY, General Western Agent, { Rooms 230 and 235 Quincy Bldg, 113 Adams Street, Chicago
O. R. HOGLE, Traveling Passenger Agent,
T. W. MORTON, Traveling Passenger Agent,
E. N. BROWN, 2d VICE-PRESIDENT AND GENERAL MANAGER,

FRANK L. MOE, Commercial Agent, Room 208 Houser Building, St. Louis
D. W. GAYLORD, Commercial Agent, 1301 Union Trust Building, Cincinnati
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J. H. TIERNEY, Commercial Agent, Laredo, Texas.
ERNEST MUENZENBERGER, Commercial Agent, San Antonio, Tex.
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F. E. YOUNG, ACTING GENERAL PASSENGER AGENT,

CITY OF MEXICO

CO.



WELL OF GUADALUPE

United States and Mexico City or any Point in Mexico

Through-out

RAILROAD has heavier steel has been installed, so railroads of the

MEXICO CITY

FINE ILLUSTRATIONS

SUED, CALLED

s of the Tropics

INTERESTING FACTS

Q, HER AGRICULTURE

AND INDUSTRIAL

WELL AS HER

FROM A HEALTH AND

NDPOINT, SENT FROM

UNDERSIGNED:

Building, St. Louis,

Building, Cincinnati,

St. New Orleans, La.

Antonio, Tex.

ER AGENT,

than fifty years. The very rivers of the land seemed to be tainted with the blood of the contestants, and the graves of its heroes were found in every valley and mountain side from the northern frontier to the Guatemala line. When there was reason to believe that the struggle was over, or nearly so, the archbishop of the church, proved to be a traitor to his country, entered into relations with Louis Napoleon and Pope Pius IX, and thus aided in bringing a young Prince of the house of Hapsburg to sit upon the throne of Mexico, who should be supported by French and Austrian troops, with the understanding that the Roman Catholic hierarchy should be permanently supreme in Mexico. But the heroes of independence rallied, in a remarkably brief period of time, and, encouraged by the suggestion of the Washington government to the French Court that European troops on American soil was a thing obnoxious to the American people, they were soon reorganized and rapidly gathered in strength till they "pushed the battle to the gates." In 1867 the Liberals were again in possession of their own government, and at once proceeded to make effective the separation of church and state, the confiscation of all church property of every description, and such amendments to the Constitution of 1857 as resulted in the expulsion of the Jesuits, the Sisters of Charity, and all other secret religious orders; and also a provision for freedom of worship and the press. No sooner was all this accomplished than the Mexican people, in many places, began to meet for public worship in a manner which was very primitive. Some time after they commissioned one of their number to go to New York and plead with the Protestant churches to send missionaries into this country. Those people in the United States who carelessly criticize evangelical churches for sending missionaries to Mexico, and trying to change the religion of the people, should never forget that it was the Mexicans themselves who first asked their brethren in the North "to come over into Macedonia to help them."

During the Mexican War of 1847-48, agents of the

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During the Mexican War of 1847-48, agents of the



STREET SCENE, ENSENADA. TURBIDE HOTEL IN DISTANCE.

more of trumpets can be heard at the day. The quartet (prison) is also Ensenada. The town has good schools and a university. (Governor) is Sr. Coronel Don Celso within the present year. He is ex- and commands the respect of all as well as foreigners who are residents in the Territory.

California Development Company, which every important interest in the North- Lower California, is maintaining pleasant relations with the government, and of the public officials is working and prosperity of the country. The company conducts a large general with branches at San Quintin and towns. The company also conducts a general banking business and issuing drafts, etc. It owns and operates a between Ensenada and San Diego, where the lines of the Western Union Tele- San Quintin and Alamo are connected by telephone.

at Ensenada, is also the property and is a commodious and well- conducted on the American plan, and accommodations for tourists and the generally. The hotel is located on an commanding a magnificent view of the bay mountains. Hunting, boating and and other outdoor sports afford recre- class who frequent the hotel, also operates a steamship line along the peninsula. The steamer St. Denis makes between San Diego and Ensenada and is a steel ship of 515 tons' burden, 11 feet beam, carries the mails and is first- respect.

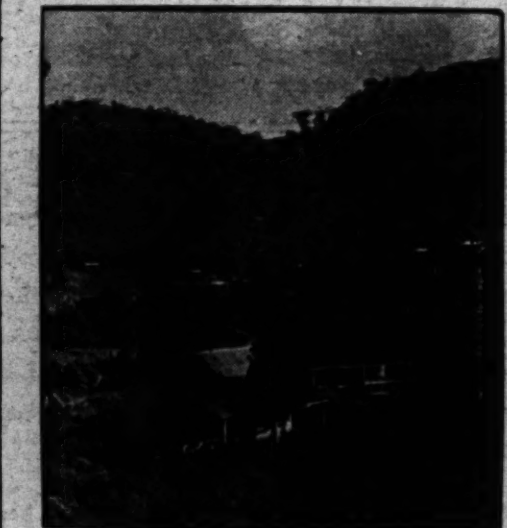
expenditures being made for im- the two large English corporations ex- on the peninsula, and capital pouring sources, the permanent awakening of a natural resources now seems to be assured.

MISSIONS.

WANT MISSIONS IN MEXICO.

CONTRIBUTED TO THE MEXICAN NUMBER.] MISSIONS in Mexico owe their origin to the Roman Catholic Church, and the abuses of Romanism for generations all over this country. When the conqueror came the Spanish priest, who were compelled to accept the Roman of religion at the point of the sword. The were destroyed, and the idols cast down which threw down their rulers and thrones. The only difference was that, completed, the priest was called to spring to hang up pictures of the saints and wood. In some places you will find that of wood or stone has been placed on the Christian church, and continues there the hand of Spain showed itself with the authorities of the church. And such exceptions: Friar Bartholo- Father Gante and some others, who years of the conquest, seemed to have by sincere desires to Christianize and But the majority of the early friars "good for gold" as that which charac- of money were wrung from the hands always under the plea that this was a for sin. But it was especially by the sacrament that the money of the proprietorship of the church. So centuries the people awoke to the fact of all their property belonged to the after the cry for independence came the cry, equally universal, for ecclesiastical bondage. The struggle be- dragged its weary way along for more

American Bible Society and of the American Tract Society distributed hundreds of Bibles and thousands of tracts among the people. This doubtless helped the Mexicans into the better way. The first American missionary coming into this country was Miss Malinda Rankin, who came as far south as Monterey in the early 60's; but it was not until some time after the French intervention, about the year 1872, that the representatives of the different evangelical churches in the United States began missionary work in anything like a formal way. About that time the Methodists, the Presbyterians, the Congregationalists and the Baptists sent their workers, and later several others came into this field. For several years the Episcopal Mission was under the direction of Bishop H. C. Riley. Now Protestant missions are found in every State of the republic. There are over 700 congregations, about 35,000 members, and about 100,000 adherents. There are about 15,000 members in the Sabbath schools, and some 7000 members in Epworth Leagues and Christian Endeavor societies, and something like 15,000 children in the day schools. There are half a dozen publishing houses, and



NEAR ORIZABA.

all the larger churches publish a church organ. Those best known and most widely circulated are the Abogado Cristiano, El Evangelista, El Faro, La Luz, y El Esfuerzo Mexicano. Tracts are published in great numbers; the Methodist Mission alone published over 5,000,000 pages of religious literature last year. Most of these missions have attractive and substantial headquarters in the capital cities of the country, notably in the City of Mexico, Puebla, Pachuca, Guadalajara, San Luis Potosi, Monterey, and Saltillo. The Woman's Missionary Society is a very important factor in connection with all the older missions. They have been successful in training teachers who are going out over the country to establish other schools. In the past the work of Protestant missions has been largely one of preparation, and now with its magnificent schools, its well-equipped teachers, its intelligent and devoted native ministry, its growing publishing houses, and enthusiastic young peoples' societies, the fact is that Protestantism in Mexico is full of hope. November 17, 1903. JOHN W. BUTLER.

Fresh fish, game and tropical fruits are always plentiful and cheap.

The Mexican Herald.

Published every day in the year at Mexico City.

The only daily paper printed in the English language.

Gives the general Associated Press dispatches, and has direct news by wire from all parts of the Republic of Mexico.

We publish the daily Market quotations, both local and Foreign.

We have active correspondents in every mining camp in Mexico.

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Besides our large subscription list everywhere, daily copies are on sale in every city of importance.

Circulation so large as to warrant it the best advertising medium in the entire Mexican Republic.

Read by all Americans, and the best element of the Mexican and Foreign population.

SUBSCRIPTION RATES IN THE UNITED STATES.

Daily Herald, One Year, United States, Gold.....	\$7.00
" " Six Months, " " " " " " " " " "	\$4.00
" " One Month, " " " " " " " " " "	\$1.00
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References by permission to THE UNITED STATES BANKING CO., Mexico, City.

C. W. Whittemore

P.O. BOX 2015.

Colisco Nuevo—No. 108.

THE MEXICAN CENTRAL.

THE LARGEST SINGLE CORPORATION IN MEXICO.

SCHOOL histories are accustomed to teach that the American invasion of Mexico took place in '46 and '47 when under Scott and Taylor and at a time when civil war was raging in that country, they made their military parade through the territory of our southern neighbor; but the real American invasion began without the sound of drum and life; no generals were in command, but merely a chief engineer. The construction of the international bridge over the Rio Grande at El Paso marks the beginning of the first real invasion of Mexico by the Americans. The second invasion was as different in its character as were the objects it sought to attain. Engineers, contractors, working men of every class formed its ranks, and they sought but the opportunity to improve their condition while aiding to improve that of the people they came among.

Mexico, which produces, or can produce every article useful to man, with a frontage on two great highways of commerce, with every variety of soil and climate; with mineral resources unequaled by those of any other nation; with a frontier of 3000 miles bordering on the wealthiest and greatest consumer among the nations of the earth, needed but the awakening and stimulating influence of this northern army of invaders to begin that career of progress which changed her from a hotbed of revolution to a great, progressive and influential nation.

The time was propitious; half a century of war, sedition, revolution, foreign invasion, turmoil and disorder had settled a few great questions. The laws of reform were in force, securing liberty of conscience; federation, or centralization, had been fought out, and the people were tired of war; there were no political questions to keep alive strife and give an excuse to unprincipled adventurers to clothe themselves with the robe of patriotism while preying on their unhappy country. From among the host of petty agitators and would-be liberators a great man had appeared, who, with a strong hand, supported by the patriotic elements of his country, was bringing order out of disorder. The old men wanted quiet and the young men wanted opportunities, through the arts of peace, to build for themselves homes, establish industries or acquire competencies.

At El Paso the Mexican Central Railway built its bridge and began laying the rails that were to make a highway between the two nations. A map of this great system is a map of Mexico. From the Gulf of Mexico, at Tampico, to the slopes of the Pacific; from the northern border to the Capital, the mining and industrial centers are reached by its rails. Manzanillo and Acapulco, the two Pacific ports, will in the near future be its Pacific termini. Today more vigorous than ever, this company is constructing lines and pushing surveys in all directions.

One company, under one management, all lines standard gauge, with a constantly increasing business and no political complications, its future is assured. There are but four cities in the republic of over 35,000 inhabitants that are not reached by its rails. Of the twenty-seven States of the republic only nine are not contiguous to its lines.

Where communication can only be carried on by means of pack animals and wagon trains, many industries cannot be successfully pursued, and all are greatly hampered. Lack of communication leads to revolution and sedition. It is impossible to transport foodstuffs long distances, so that famine may prevail in one district while there is a superabundance of all the necessities of life in another. Lack of communication breeds provincialism and causes local jealousies and dislikes; furthermore, it makes impossible the concentration at any one point, with cheapness and celerity, of the resources of a nation, either for peace or war. But the Mexican Central Railroad has rescued from their isolation vast regions that before its construction were dependent on the pack-train or the ox-cart for their means of transportation; has made available mining and agricultural districts that were but slightly productive; has influenced the investment of American capital, agricultural and manufacturing, to the amount of \$500,000,000, not counting that put into railroads; and yet a beginning has hardly been made. The invaders who crossed the bridge at El Paso are but little more than a skirmish line. What has been done is inconsiderable as compared with what can be done. Probably not 10 per cent. of the mineral deposits that are susceptible of exploitation at a profit are now being worked. Millions of acres of land that needed only to be tilled with the plow to smile in an abundant harvest are laying fallow. Millions of dollars are sent abroad annually to pay for manufactures that can be made at home. Water runs unharnessed to the sea that could,

and it announces to the world that the destinies of the firm, just and enlightened management, grant who wishes to see her development, should receive his share of the creation of wealth out of the prodigal Nature, will be Americans are accustomed to seeing greater advantages than any other nation of by civilized men to the wonderful industrial population that now inhabits the memory of living men were in the dians, or trackless forests, in their belief. But they have ground of Kentucky, the fertile Mississippi Valley, the fertile trackless and waterless wastes skeletons that mark the march of the great American desert is in a Pullman car. A wonderful development, not because of the better field for settlement and privations have to be undergone greater reward than those of the United States.

Here is no rigorous winter of a summer; no Indians to be waterless plains to be crossed, no horse instead of the bustling running car instead of the slow transportation. Furthermore, every climate is available. The high of Durango, Chihuahua, Coahuila, climate unsurpassed in the heavily timbered, living forest, flat table lands, in part rich in feed, but there is room for mountains, and foothills sloping lays between, where fruits of the oranges, coffee, bananas, sugar, other products that need but the man to produce a bonanza of gold, copper, silver and lead are scratched; and with conditions, facilities, labor, all so favorable, exploitation less difficult and more better known and more different.



MAKING TILES.

should, and in the near future will drive the machinery of a great nation.

There is no railroad system in the world that has relatively as dominating an influence on the commerce and industry of the country in which it is situated as the Mexican Central Railroad has on Mexico. It is the railroad of the republic.

At the close of the current year there will be in operation in Mexico approximately 12,000 miles of railroad, of which about 4000 miles will belong to the Mexican Central. What other company operating in a great nation owns nearly one-third of its railroad mileage?

The prosperity of the Mexican Central depends on the prosperity of Mexico. The development of Mexico is what will justify the millions expended in the construction of this railroad system, and secure an adequate return on the investment.

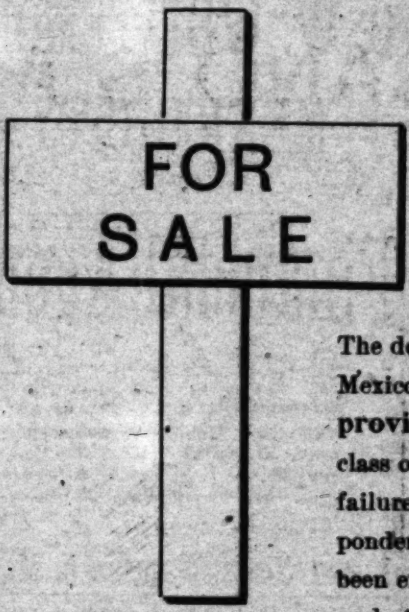
Therefore, this company does all that in its power lies to foster every industry and protect every settler,

It may live. Resources must be nothing to the revenues of a fertile lands lying fallow pay the seeker must come to see the to develop it. To foster the Central Railroad, in connection with the United States, has authorized tickets, throughout the year, to Mexico, with stop-over privileges to Grande within their final limit, to aid those who, leaving none of tyranny of trusts and domination behind, seek to better their establishment of new homes, olive, the orange, or the palm; with plow and pruning-hook, and trowel, wresting from prodigal Nature now lie dormant.

W. ALEXANDER
K. BACHE
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Virgin Land Producing Ranch

NOTE—I have had ten years actual residence and experience in and upon these lands which I offer for sale.—G. A. TUCKER

The development and culture of the fertile bottom lands in the tropical valley of Mexico offer today a larger return on the investment than any class of Mexican land provided you start right. This means right location, right kind of soil, climate, class of products, transportation, and many other vital questions that mean a failure. I can help you. I have all classes of land for all purposes. Dependence solicited in regard to any of the following propositions, all of which have been examined by me personally, and are recommended as being the best of their kind and at their real value:

1. 12,000 acres of land situated on the Tehuacan River, in the State of Oaxaca, 9 miles from the railroad crossing on the river. Water transportation to the railroad and to the Gulf of Mexico. 6,000 acres bottom land not subject to overflow, balance fine cattle range.
2. Cattle Ranch of 10,000 acres situated on Tehuacan River, State of Oaxaca, well adapted to raising and fattening cattle. Plenty water and South American grasses on part of it. One acre

- will fatten two head of steers annually. Has 100 cattle on it now, to be sold with ranch. 2,000 acres is as fine sugarcane land as there is anywhere.
3. 780 acres on the Obispo River, State of Oaxaca, for all kinds of agricultural purposes, sugarcane, rubber, corn and rice. 300 acres now cleared and planted.
4. 32,000 acres fine cattle range, well watered. A great bargain.

HAVE YOU MONEY TO LOAN? I can guarantee you 8 per cent. net on sums, large or small, placed upon the very best real-estate security. I refer, by permission, to The United States Banking Company. Correspondence solicited. Reliable information cheerfully furnished.

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Eduardo Mealla
Manuel Arana.

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check, and inter
thereon.
made to customers
payments against a
also approved
received in sec
made throughou
usually low terms,
for.

the sale and pur
Mexico execute
Dividends p
corporations

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LIONEL H. MILLER, Manager

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Buy and Sell Bills of Exchange and Cable Transfers.

For the purpose of avoiding confusion in correspondence, please note that the "International Banking Corporation" is in no way connected with any Bank or Trust Company of similar name.

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1903, 4th EDITION.
LIEDERS.

CAPITAL \$10,000,000
RESERVE \$915,525.34

P. O. BOX 302, MEXICO, D. F.
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S. Bleichroeder..... Berlin.
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Comptoir National d'Escompte..... Paris.
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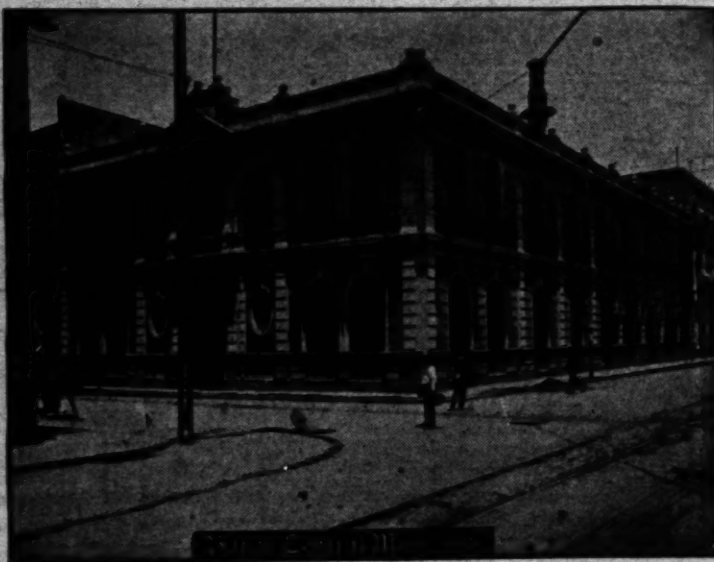
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Transfer of Funds, made by cable, mail, or telegraph, to all parts of the United States and Europe.
Foreign Exchange purchased and sold at the ruling market rates.

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Cash Bonds, issued at \$100, \$500, \$1000, without coupons, payable at six months, besides Cash Bonds, payable at twelve, eighteen, and twenty-four months with half yearly coupons, both kinds bearing interest at the rate of 5 per cent. per annum.

Correspondence is cordially invited from Banks, Bankers and others contemplating the opening of an account in Mexico, or making changes in existing arrangements.



Condensed Statement of the Banco Central Mexicano
No. 58 at the close of business on the 30th Sept., 1903

RESOURCES.		LIABILITIES.	
Cash on Hand	\$4,420,870.00	Capital	\$10,000,000.00
Demand Loans	775,198.44	Cash Bond Issued	2,191,200.00
Loans	5,195,000.13	Sight Deposits	7,753,473.06
Bills discounted	5,001,170.63	Time Deposits	1,935,003.95
Loans against security	2,954,358.50	Reserve Fund	915,525.34
Investments	2,755,000.22	Current accounts Creditors	8,446,052.98
Bank Premises	411,776.96		
Current account Debtors	13,304,601.79		
	\$21,008,915.24		\$21,008,915.24

Government: Auditor: Sub-Manager:
F. Cortina. F. Kladt.

Manager: Ferde Pimentel y Fagoaga.

OFFICERS.

President.
Vice-President.
F. P. FAGOAGA.
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land anywhere.

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sugarcane, coffee,

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well watered. Very

valuable.

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"HEART OF THE TROPICS ROUTE"

A Transcontinental Highway

Connecting the great port of VERA CRUZ and
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Tehuantepec National Railway at Santa L.

Cordoba and all steamship lines entering Vera Cruz) and the
for Salina Cruz, Pacific Coast Points and the Orient.

<p>PASSING THROUGH THAT PART OF</p> <p>Tropical Mexico</p> <p>WHICH IS RICHEST AND MOST PROLIFIC IN THE PRODUCTION OF :: ::</p>	Tropical Fruits	BANANAS	PINE APPLES	ORANGE
		COFFEE		RUBBER
	Agriculture	SUGAR CANE	CORN	RICE
		ALFALFA		GRAIN
	Timber Lands..	MAHOGANY	CEDAR	EBONY
		ROSEWOOD		DYE-WOODS

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The lands adjacent to the Vera Cruz and Pacific R. R. present the finest opportunity for the
investment of capital in the cattle business of any part of the Mexican Republic. The
grasses grow in prodigal abundance, are rich and extremely nutritious, and there are never
the extremes of climate common in portions of the Republic. Water is plentiful and well
Shade is of the very best. One acre of land will support and fatten for the market two head

This is a fact easily substantiated. The market is good, being both local and foreign—the proximity of the big cities of Southern
including the Capital, itself, and the direct shipping facilities afforded by the Vera Cruz and Pacific R. R. to the port of Vera Cruz.
the Pacific Coast opens the markets of the world to this favored section. Ticks and fevers are wholly unknown and never have
The Vera Cruz and Pacific R. R. own no lands for sale nor do they act as agents for others but will gladly, at all times give
interested information on questions relating to this or other industries adaptable to the territory adjacent to their lines. Inquiries
be addressed to the General Freight and Passenger Agent, Mr. W. T. Easley, Cordoba, Vera Cruz, Mexico.

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Mexico City Offices--First San Francisco St., No. 12.

R. B. PEGRAM, Pres. and Gen. Mgr., Orizaba. Main Offices--Orizaba, Mexico. WM. T. EASLEY, Gen. F. & P. Agent

BANK

Gen'l. Report

Cash on hand in City of
Funds placed with agents
Letters of credit in Mex.
Collateral loans
Real estate loans
Current accounts due
branches
Pictures & bank property

Capital (fully paid in)
Reserve
Term deposits in Mex.
Current deposits
Bills payable and other
Bank notes in circulation
Interest on bills not due
Profit and Loss

Fund previously set aside
Funds reserved in 1902

Authorized capital
Paid up capital
To the reserve fund
Annual dividend of 13
To new account

Vera Cruz, Que

Londres. London
Paris.....O
New York.....O

MAIN OFFICE

BANK OF LONDON AND MEXICO,

Oldest Financial Institution in
the Republic of Mexico.

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Assistant General Manager, Senor F. YARZA.
Accountant, Senor G. HOPFNER.
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Senor ENRIQUE POMIER.

Attorney:

Senor Lic. Don PABLO MARTINEZ DEL RIO.



Gen'l. Report on the 31st Dec. 1902.

ASSETS.	
Cash on hand in City of Mexico & branches....	\$10,680,767 08
Funds placed with agencies.....	699,965 31
Letters of credit in Mexico & branches.....	27,048,305 63
Collateral loans.....	12,777,853 00
Real estate loans.....	4,053,718 83
Current accounts due in Mexico City & branches.....	4,960,835 71
Buildings & bank property.....	323,079 71
	\$60,652,426 26
LIABILITIES.	
Capital (fully paid in).....	\$15,000,000 00
Reserve.....	5,500,000 00
Term deposits in Mexico and branches.....	5,324,048 58
Current deposits.....	12,214,767 34
Bills payable and other obligations.....	1,304,351 84
Bank notes in circulation in Mexico and branches.....	18,814,940 00
Interest on bills not due.....	638,436 01
Profit and Loss.....	1,855,882 49
	\$60,652,426 26
RESERVE FUND.	
Fund previously set aside.....	\$5,500,000 00
Funds reserved in 1902.....	500,000 00
	\$6,000,000 00
CAPITAL.	
Authorized capital.....	\$15,000,000 00
Paid up capital.....	15,000,000 00
DIVISION OF PROFITS.	
To the reserve fund.....	\$ 500,000 00
Annual dividend of 12 per cent.....	1,800,000 00
To new account.....	305,882 49
	\$ 2,605,882 49



Branches.

Veracruz, Queretaro, Gaudalajara, Morelia, Torreon, Puebla, Guanajuato, San Luis Potosi, Mazatlan, Monterey, Aguascalientes, Durango.

Foreign Correspondents.

London Bank of Mexico and South America, Ltd.	San Francisco.....	Canadian Bank of Commerce
Comptoir National D'Escompte de Paris	St. Louis, Mo.....	National Bank of Commerce
Credit Lyonnais	Hamburgo.....	Senores L. Behrens & Sohne
Bank of British North America	Madrid.....	Senores Urquijo Y Compania
Senores Muller Schall & Co.	".....	Banco Hispano-Americano

BANK OF LONDON AND MEXICO,

MAIN OFFICE MEXICO CITY.

Corner Lerdo and Capuchinas Streets.

THE UNITED STATES BANKING COMPANY

City of Mexico.

Located in the Center of the American Business Section of City of Mexico

Largest American Bank in the Republic

Organized Jan. 9, 1900, with a Capital Stock of....\$100,000

Jan. 10, 1903, Capital Stock Increased to.....\$500,000

Jan. 1, 1904, Capital Stock will be Increased to...\$2,000,000

With an Accumulated Surplus of.....\$320,000

Deposits at close of business:

January 31, 1901.....	\$ 489,463.49
July 31, 1901.....	877,272.86
January 31, 1902.....	1,501,696.15
December 31, 1902.....	2,894,656.29
June 30, 1903.....	4,045,088.37

OFFICERS

President.....	T. R. CRUMP
V. President, 1st.....	G. W. JENNINGS
V. President, 2nd....	RICHARD HONEY
Manager.....	GEO. I. HAM
Cashier.....	F. W. STROM

DIRECTORS—T. R. Crump, G. W. Jennings, Richard Honey, H. R. Nickerson, J. Hatfield, L. O. Harnecker, R. J. Dwyer, Geo. I. Ham.

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National Park Bank.
CHICAGO—
Corn Exchange Nat. Bank
SAN FRANCISCO—
American National Bank.
LONDON—
Martins Bank, Limited.
PARIS and MADRID—
Credit Lyonnais.
BERLIN—
Deutsche Bank.
NEW ORLEANS—
The Interstate Trust and
Banking Co.
EL PASO, TEXAS—
The First National Bank.
The Lowdon Nat. Bank.
LOS ANGELES—
The Farmers and Mer-
chants National Bank.
The First National Bank.
KANSAS CITY—
Nat. Bank of Commerce.
ST. LOUIS—
Nat. Bank of Commerce.
SAN DIEGO—
Nat. Bank of Commerce.

Accounts of com-
panies and individ-
uals who are now
operating or who ex-
pect to become in-
terested in MEXICO
respectfully solic-
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Visitors also in-
vited to place their
transient accounts
with us.

BRANCHES:

Parral.
Taxco.
Oaxaca.

AGENTS:

Banco de Orizaba,
S. A., Orizaba,
Veracruz.
Cla Banquera, Ver-
acruzano, S. A.,
Veracruz, Ver.
American Bank of
Torreon, Tor-
reon, Coah.

Sending Money.

For forwarding
MONEY nothing is
better than our
BANK DRAFTS.
The security is ab-
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Issued on the prin-
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UNITED STATES,
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and EUROPE.

Collections.

We have every fa-
cility for collect-
ing NOTES, DRAFTS
and BILLS OF EX-
CHANGE for MEX-
ICANS, BANKERS,
FACTORS and MAN-
UFACTURERS, whether the bills
are payable in MEX-
ICO, the UNITED
STATES, CANADA,
GREAT BRITAIN
or EUROPE, and to
collect AT RATES
that will be SATIS-
FACTORY to you.

Americans Visiting Mexico are Invited to Make This Bank Their Business Headquarters.
Correspondence Solicited.

The United States Banking Co., S. A. Gante No. Mexico City

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S
T. R. CRUMP
W. JENNINGS
HARD HONEY
GEO. I. HAM
F. W. STRONG

ickerson, John

Collections.
We have every facility for collecting NOTES, DRAFTS, and BILLS OF EXCHANGE for MERCHANTS, EXPORTERS and MANUFACTURERS, whether the Bills are payable in MEXICO, the UNITED STATES, CANADA, GREAT BRITAIN, EUROPE, and we collect AT RATES that will be SATISFACTORY to YOU.

Headquarters

Gante No. 1,
Mexico City.



LOS ANGELES.

THE MAN FOR HIS COUNTRY.
GEN. PORFIRIO DIAZ, PRESIDENT OF THE MEXICAN REPUBLIC.

FIRST SECTION
33 PAGES



IN TIME OF WAR: Gen. Diaz to his soldiers, Puebla, April 2, 1867: "Soldiers! You deserve well of the country. The struggle can be prolonged no longer. You have just given proof of your irresistible valor. Who will dare to measure arms with us of Puebla? Independence and republican institutions will waver no longer. A country that has sons like you will be safe from conquest or oppression." . . . IN TIME OF PEACE: "The United States is Mexico's big brother to the northward."

POINTS.

To see the President is the ambition of most Americans visiting the Mexican capital. Usually a letter sent a few days previous to his regular reception days, asking for an audience, is sufficient to bring this about. It is better, however, to have this letter accompanied by a note from some one personally known to President Diaz. An intermediary is always on hand at the National Palace. The President is very gracious to all Americans, but it should be remembered that he is a very busy man.

The Valley of Mexico is seventy miles in length and thirty miles in width. Lake Texcoco, a large body of water lying immediately to the east of the City of Mexico, is at least lower than the level of the street pavements. In 1521 this lake rose and inundated the city, drowning thousands of the inhabitants. The waters of the lake surrounded the site of the city to a depth of three feet, and remained so for over four years. This danger is now obviated by the great drainage canal described elsewhere in this issue.

Mexico has many ancient ruins, particularly in the States of Oaxaca, Chiapas, Yucatan and Morelia. Those of Oaxaca; Palenque, in Chiapas; Uxmal, in Yucatan; and Xochimilco, in Morelia, are among the most interesting. Some of them represent whole cities, and are supposed to be from two to three thousand years old. They all show the most elaborate carvings, which closely resemble the Egyptian hieroglyphics.

How much Spanish should one know or understand in order to visit Mexico is a most common question. It may be stated that a knowledge of Spanish is desirable, the more the better, but one may travel the length and breadth of the land without this knowledge, and suffer no inconvenience—provided he is patient and willing to learn the ways and customs of the people. There are English-speaking people in all parts of the republic.

The fifty-four pages of the Mexican Number is emblematic of a vast fund of information about the republic which can be secured nowhere else in so convenient a form. Special care has been taken to secure accuracy and comprehensiveness in the contents, and to so carefully select the various articles that the reader's search for reliable matters is rendered easy and simple. A table of contents appears.

At night tournaments, or "corridos," are held every day during the winter months, and generally attract an audience of from ten to fifteen thousand. Admission fees range from \$1 to \$4, according to the seats. The best bull fighters all come from Mexico. Americans seldom cultivate a taste for the sport, but most Americans visiting the city go once, out of curiosity.

Justice is made to be obeyed, and Mexico has some of the "dead-letter" laws that are so common in the United States. Justice in Mexico is administered to all, and evenly to all. There are none of the legal technicalities and appeals in criminal cases that delay the execution of a sentence once passed.

Mexico is more than any other country in the world, a land of great age. Many of the old buildings, with their thick walls, that were built in the sixteenth century still standing, and form a strange contrast with the modern structures now being built in the ancient city.

There are 10,000 Catholic churches and chapels in Mexico. Bishops and twenty-one bishops administer the church. All Catholic church property in Mexico belongs to the government—since the reform laws were enacted.

Americans should beware of the Mexican "rateros," or thieves, as they are the most adept of any of their kind in the world, with the possible exception of those in the United States.

The splendid and thrilling address of congratulation by Gen. Diaz to his triumphant troops at Puebla on the victory of April 2, 1867, is reprinted on another page.

"D. F." as the post mark on all Mexican postal cards, means "Distrito Federal," or Federal District, which corresponds to our Washington, D. C.

Mexican cities have no fire department, as they are almost entirely of stone, with stone floors and walls, burning little to burn.

Attending a Mexican theater the admission is charged at a dime; thus the rates are according to the value of the play.

President Diaz speaks and understands English to some extent. Spanish is used exclusively in all conversations at the National Palace.

A recently introduced in the Mexican Congress the office of Vice-President. It will probably be established.

Mexicans, as a people, are fond of flowers, roses and carnations, which are sold very cheap in all the markets.

There is a thirty-third-degree Mason, in Mexico.

STRANGERS IN MEXICO.

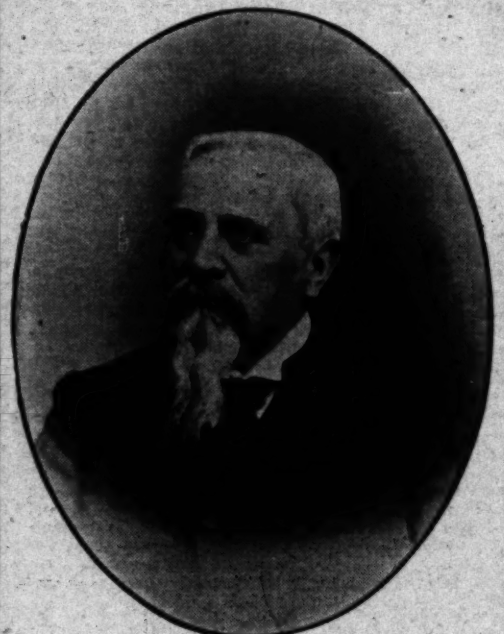
THE RIGHTS AND DUTIES OF FOREIGNERS IN THE REPUBLIC.

[CONTRIBUTED BY HON. Y. SEPULVEDA.]

THE necessity of temporary or permanent sojourn by foreigners, growing out of modern facilities for the purposes of business or pleasure, requires that those who are not citizens should be familiar with the relations they bear to the State, that they may fulfill their obligations and enjoy the corresponding rights.

History records the sad fact that the foreigner or stranger in ancient times was not always the recipient of rights or privileges, or even of humane treatment. The Scriptures tell us that the principle of protection to strangers first emanated from the lips of God Himself. When redeeming the people of Israel from the house of bondage he enjoined upon them, among other sublime admonitions, the sacred precept, "Thou shalt neither vex a stranger nor oppress him; for ye were strangers in the land of Egypt." Since then civilized nations have bestowed on foreigners rights and privileges unknown in the days of old.

This republic, from its infancy, entertained the principle of opening its doors to all who desired to enter the territory, and within a few years after the consummation of its independence conferred all civil rights on foreigners, and aliens born have found homes here with all the avenues of business unrestrained. Thousands availing themselves of the hospitality which the



HON. YGNACIO SEPULVEDA.

laws and the people tendered them have assisted in the progress and development of this land, and shared the advantages resulting from its prosperity.

The very first article of the Constitution of Mexico recognizes the rights of man, and guarantees to all "life, liberty, and the pursuit of happiness;" and the same instrument expressly secures to foreigners the guarantees conferred by said article. They enjoy in their plenitude the civil and religious rights to which Mexicans are entitled, entailing only the obligation to contribute to the public expenses, to obey and respect the institutions, laws and authorities of the country, and to abide by the determinations of the courts, saving to the government the power to expel pernicious foreigners, and in this they follow the principle which prevails in all nations, that they have an inherent right to expel foreigners whose presence they deem a source of danger to the nation. In the United States this right is considered to be an essential attribute of its sovereignty.

In Mexico foreigners are exempt from military service, but those who are domiciled are obliged to do service in the police force when it is necessary for the security of property and the preservation of order in the place where they reside; and the government of the United States has recognized the local duty of its citizens who reside in a foreign country and there have relations with citizens of that country and have interests which the municipal regulations guard and protect, to be called upon to protect those interests in conjunction with the citizens of that country whose interests are likewise jeopardized. But they must abstain from interfering in the political affairs of the country, and should they take part in the civil dissensions, the law of expulsion may be applied to them.

In accordance with the Constitution and laws, foreigners here, under certain conditions, are constituted citizens of the republic, with the privilege of exempting themselves from this result by electing to preserve their original nationality. Foreigners who acquire real estate in the republic, or have children born within its territory, become Mexican citizens, unless at the time of acquiring said property they state in the deed, or at time of registering the birth of the child, that they wish to retain their nationality. Aliens may be admitted to citizenship according to naturalization law.

In Mexico, as in other nations, and as in some of the States of the American Union, there are restrictions as to the acquisition of land by foreigners; for the right to hold said property is a question of municipal law which each community governs by its own regulations. Here the acquisition of vacant lands in a frontier State or Territory is absolutely prohibited to the natives of the respective boundary nation. The inhibition as to acquisition of real property within twenty leagues of the line of the frontier is overcome by obtaining permission of the President of the Republic to acquire the same, and this permission is rarely withheld, and only in cases of manifest propriety. It seems to be a doubtful question as to whether the law prohibiting the acquisition of such property within five leagues of the coast is in force. Hence, it appears that the limitations in respect to holding real property are few, and unrestrained by the necessity of residence or naturalization.

It is an established doctrine that a foreigner placing himself within the jurisdiction of a foreign government subjects himself and his property to its laws and is amenable to its courts of justice. He owes to that country a local allegiance, and is bound, to the same extent as natives, to know and respect the laws of the nation that admits him. So long as he resides within its territory, as a duty imposed on him by the mere fact of his residence and the temporary protection which he

enjoys, he must obey its laws. Aliens, on the other hand, are entitled to the protection of the State within whose limits they are, as long as they do not violate the laws, and every act of oppression or manifest injustice may be a ground of complaint on the part of their native country, though the law of the land may, without injustice, impose obligations on foreigners different from those prescribed for the native-born citizen. Thus, they may be obliged to pay a residence tax, may be restricted as to the power of holding land, or as to following certain trades or professions; may have no political rights, or may be compelled to give security in suits where the native is not; may be subjected to special police regulations, without any ground for complaint that they are oppressed. But many of these restrictions have disappeared with the advance of humane feeling and the increasing frequency of intercourse between nations, until foreigners, as in Mexico, are vested with all civil and religious rights, and are on a level, save in political rights and privileges, with the native born.

I may add that a strict compliance with the revenue laws and municipal regulations is of extreme import to those engaging in business, and they must watch with great vigilance the provisions relating to jury duty, the stamp law, keeping of commercial books, payment of taxes, licenses and dues exacted by law.

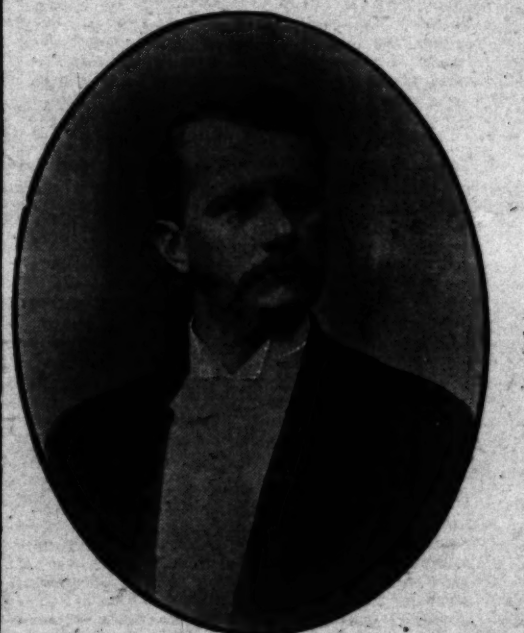
I have endeavored in a cursory manner to present to you the laws and obligations affecting foreigners, and it results that these obligations are neither numerous nor burdensome; that the rights which they enjoy are invaluable, and, by far, more than compensate the obligations imposed. By respecting the institutions and constituted authorities of the country, refraining from taking part in political affairs, yielding obedience to its laws, co-operating in its progress and welfare, cherishing a spirit of broad brotherhood toward the members of the community in whose territory they abide, foreigners will establish a standard of conduct which not only welds them in harmony and good will, but keeps aloft and untarnished the fair name and flag of the country of their nativity.

PERSONAL.

SKETCH OF EDWARD CROMPTON BUTLER.

EDWARD CROMPTON BUTLER is a native of Massachusetts, born in 1853. He was, with his father, Dr. William Butler, founder of the Methodist Missions in India, who, with his family, barely escaped to the Himalayas during the Mutiny. Returning to the United States, he resided with his parents near Boston, where he attended the Boston Latin School. In 1874 he went with his father to Mexico, where he took charge of the printing office operated in connection with the Methodist Missions founded in the republic by Dr. Butler. Col. J. W. Foster was then American Minister to Mexico, just as Gen. Porfirio Diaz was coming into power. In fact, Mr. Butler saw Lerdo fly, and the following day saw Diaz enter the capital. In the American Legation parlors he met Miss Anna V. Smith, and they were married three years later in Bay City, Mich., where Mr. Butler once published a paper. He was, in 1879-1880, prominently connected with the Deadwood Pioneer. In 1881-82 he reported on the Kansas City Star, and returned to Mexico in 1884, coming in, with the family, on the first through train of the Mexican Central Railroad. From the spring of 1884 to that of 1896 he was connected with the United States Legation, and was appointed Secretary of the Legation by President Cleveland, in 1895, although he was in politics a Republican. For two years or more, at different periods, Mr. Butler acted as Chargé d'Affaires, and in that capacity was instrumental in helping to smooth out threatening difficulties between Mexico and Guatemala.

His pleasing personality, his charming command of the beautiful Spanish language, his diplomacy and tact, and his conscientious and effective labors commanded



EDWARD C. BUTLER.
Los Angeles Times Correspondent in Mexico.

the attention and approval of his own government as well as that of Mexico. After leaving the Legation, Mr. Butler drifted back to his favorite occupation of newspaper work. At present he represents various papers in the United States, chief among them being the Los Angeles Times, in whose columns he is faithfully relating the interesting story of the progress of that marvelous republic. [The Times congratulates itself on having selected such a capable journalist and man of letters. His efficient service on the Mexican Number will surely be of much benefit to Mexico.—Ed.]

Mr. Butler wrote or compiled the following principal articles and sketches in the Mexican Number:

- "The Mexican Republic."
- "Valuable Statistics."
- "Mexican Capital."
- "Agriculture."
- "Picturesque Mexico."

The chief "American" States in Mexico, in the order of their importance, are Mexico, Sonora, Chihuahua and Monterey.

THE MEXICAN CAPITAL.

ABOUT 1500 B. C. the Olmecs, of Tartar origin, superseding the American giants, peopled the American continent. They inhabited the table-lands of the continent, swarmed its forests, and like wild birds lived upon its silent lakes. Veytia, the Mexican antiquarian, who picked up fragmentary links left by Josephus, relates vaguely the story of ancient Mexico to the moment when, under the arch of twenty centuries, the Aztec shifted into the scene. Drifting from the Californias, this rude race reached Mexico. Five hundred years of wandering found the Aztec entering this storied valley, which he circled for full a century, seeking rest for his pilgrim feet; his hand against every man and every man's hand against him—an Ishmaelite of the West.

The Aztecs, in 1325 A. D., assembled on Lake Texcoco and from thence sent priests to select a site for the Mexican capital. This was selected on a small islet between the Plaza de Santo Domingo and the cathedral site, where upon a thorny nopal or cactus they found an eagle holding in its beak a writhing serpent. Their little city covered what would now be a city block, and it was called Tenochtitlan, in honor of its founder. The first dwellings were of reeds and rushes, but gradually lava stone from the adjoining Pedregal, and basalt from the western hills were employed. The capital had in 1519, when Cortez came, about 300,000 inhabitants, and was about one-quarter the size of the city of today. In shape it was a parallelogram, connected with the mainland by three large causeways of stone and earth. There were three lakes, the Texcoco (salt water), the Chalco and Xochimilco (sweet water.) The 8th of November saw the fall of the Aztec empire. On that day Cortez and Montezuma met near the site of the Hospital de Jesus, and from that moment commenced the dissolution of the Aztec empire.

After Cortez had captured and reduced the Aztec capital, he created the town of Colhoacan, a suburb to the south, the first town built upon the American continent by white men, and one year later he commenced to occupy the capital city of Mexico.

In the year 1600 the Mexican capital had within the city walls 1,304,800 square meters; without the walls, 2,040,915 square meters—a total of 3,345,715 square meters. In 1861 it had 5,181,173 square meters, and in 1903 10,055,116 square meters. Its population was in 1519, 300,000 Aztecs, who lived in 120,000 houses. In 1600 there were 8000 Aztecs and 7000 Spaniards, which gives color to the almost incredible stories of wholesale massacres of the Indians by the Spaniards. The real property in 1600 was worth \$20,000,000; in 1675 the population was 40,000; in 1746, 90,000; in 1786, 112,925; in 1878, 180,000, and the Federal District had attained meanwhile a population of 241,000. In 1888 the value of real estate had risen to \$180,000,000, and in 1902 the \$486 houses in the capital were valued at \$350,000,000, exclusive of 350 unoccupied lots in the city, valued at \$175,000,000, and 2250 properties in the Federal District valued at \$150,000,000. The direct taxes in 1902 were: City, \$3,575,973 and Federal District \$5,039,110. Rented houses pay a predial tax of 12 per cent, and in 1902 the city realized therefrom \$2,000,000. The last census (1900) gave to the Federal District 550,000 inhabitants, and to Mexico City 425,000; of the latter 150,000 were of the upper and middle classes, 20,000 of them speaking English. The Blue Book for 1903 gives 6000 Americans and 1600 English in the city and the district, whereas in 1877, when General Diaz came to power, there were about a dozen Americans and not quite as many English in this capital. The pupils of primary schools in the district in 1902 were 46,680 in 316 schools. The operations in the Public Registry of the district in one month (July, 1903), were 717, valued at \$18,036,657; the city revenue in June, 1903, which was, by the way, the last month of the last year of the colonial government of the city, was \$295,596.02, and the expenditure \$242,976.60. The interest on the 5 per cent. gold bond issue, covering the municipal loan in 1902, amounted to \$1,540,000.

The coinage at the Mint in this capital from 1537 to 1901 was \$2,507,962,275, and the coinage in 1902 was \$27,000,000; this is independent of the coinage in the other mints of the republic. At the Monte-de-Piedad, or government pawn shop, the surplus in May, 1903, was \$2,000,000, and the average annual loans (made to 40,000 to 50,000 poor people) was \$1,000,000.

The street-car system of the capital (broad gauge) is 24 kilometers; cars and motors, 600; capital authorized, \$10,000,000; power employed, 3600 horsepower; fares collected in 1902, 35,000,000. In 1902 the capital had one saloon to each 475 persons and one pulqueria to each 270. The Sunday entry just prior to the law of January 1st, 1903, of arrests in the eight police stations, was 1290, and the first Sunday after the law, 309. The Monday arrests prior to the law were 1400, and the first Monday after, 500.

At the time of the Spanish conquest there were few, if any, two-story houses in the capital; the buildings were erected tier upon tier, with slanting sides, square shaped like the Egyptian houses, buttressed affairs, the cornices done in red symbols, the walls in stucco work, in cinnamon red or in blue or white. There were airy windows without glass, set in square towers; also figured portals or arcades, with slanting arches formed of stone monoliths, sometimes of astonishing size; overhanging balconies and roofs that were gardens in air. There were gardens on the lakes and gardens in the air, and Cortez found them full of a silent, scornful, suspicious and severe race. The city was surrounded by water lying equidistant between the Peñon and Chapultepec, and the water of the lakes reached Chapultepec at that time. Since then Lake Xochimilco has shrunk one-half, while Chalco has been drained and its bottom turned into fields of corn and barley.

The ancient capital was divided into four sections: Teopan, Moyotla, Cuapapam and Astacoalco, names prescribed by the Spaniards for the alphabetless Aztec. The palaces of Montezuma were huge affairs, singularly decorated. The Indian dancing school, or "culcoyan," stood where now is the Portal de Mercaderes, and the Monte-de-Piedad, or government pawn shop, stands on the site of the old Palace of the Emperors. The central "tianguiz," or market place, was so large that 50,000 Indians could barter there.

At the time of the Spanish conquest history was being made slowly on the American continent; the Spanish conquistadores were quaint and curious characters, cut like cameos out of their own picturesque past. Nearly one century before the Mayflower entered into

Plymouth harbor, Cortez was treating for the surrender of the Mexican empire. New York was then a wooded island, sold to the Dutch for twenty-five dollars. San Francisco was hemmed in with silent seas, now strangely astir. In the odd little city of Santa Fé is a government palace, the oldest building in the United States, antedating by nine years the settlement of Jamestown, Virginia, and by twenty-two years the founding of Plymouth. Eighty years before the building of the palace at Santa Fé, a palace was built in the City of Mexico for the town council, where regular weekly sessions of the municipal council have been held for 280 years, and only ceased July 1st, 1903, when the colonial city government disappeared and the Mexican capital (like Washington, D. C.) came under the government of the Federal District.

The Spaniards had brought to New Spain Old-World notions of architecture, even to the arch conceived by the Moors from the shape of the horseshoe. Barcelona the old, which is mentioned in the Bible, that for 2000 years had rested within high walls—a setting of new gold on an old gem—gave the hint to Mexico, walled in with a new city growing all about it. The first building erected by the Spaniards in the city was the Atarazanas, or naval arsenal for the brigantines, built near San Lorenzo. The Cathedral was commenced on the site of the old teocalli, or temple, in 1573. Some of the alleys and streets continue as in 1523, with such names as "The Lost Child," "The Wood Owl," "The Sad Indian," "The Holy Ghost," and "The Immaculate Conception." The Chapel of Conception was the site of the surrender of Cuauhtemoc. Some of the old-fashioned buildings remain, hints of Moorish genius that had blossomed in marble and stone throughout Valencia and Andalusia; some churrigueresque facades like those of San Miguel del Puente, in Spain, dwarfed portals of Encantos reproduced under Mexican skies; the grate windows of old Madrid; the overhanging balconies, deep-set windows with carvings that fall over them like heavy eyebrows; arched doorways, long corridors, low-pitched roofs, walls ten feet thick, patios that are pictures of the past pencilled in stone, still asleep as in the dreamy vice-regal days.

Some of these ancient buildings are used as maisons, or inns. Opposite the Humboldt Hotel is the quaint colonial mansion of the Counts of Santiago. The Porcelaine Palace, built in the eighteenth century, and now occupied by the aristocratic Jockey Club, was faced with tiles brought from China in the galleons of which Bret Harte wrote. The house of Humboldt, occupied in 1803, is another relic, but of recent date. The stone house occupied by Bazaine, the French general; the massive School of Mines, also the old building where the first printing press in America was set up in this city in 1537; a house standing now on the corner of Santa Teresa and Carrada de la Moneda, are among the mute witnesses to that curious past.

As late as 1625 the city was primal in its appointments. The Viceroy, the Count of Monterey (who was the founder of the two towns of that name in California and Mexico,) did what he could to repress lawlessness, but the streets of Mexico were dazzling by day and dangerous by night. Those were the days of the Inquisition, founded in 1571, with jurisdiction not only over Mexico and Guatemala, but also over the Philippines. The Church was supreme and the State was at its feet. In 1786 Count Revillagigedo, the Viceroy, undertook to cleanse and police the city, and really made commendable advance in that direction.

In 1861 to 1867, the period of the Second Empire, Mexico was still isolated from the world, without railway or electrical improvement. In 1896 an attempt was made to adopt a modern nomenclature for the streets, but it is still unpopular, although the government now adopts it in its official documents, and sooner or later it must be familiarized; but at present the oldest resident would scarcely be able to say where to find First East Avenue (Avenida Oriente 1.) while any street urchin can tell where is its equivalent, Callejon del Pinto. In 1900 the street-car lines were equipped with electricity. Every one was prophesying before that time that the electric trains would kill the people, and for a time as many as fifty accidents occurred in one month; but this has been greatly reduced by governmental interventions. During last August there were only fifteen accidents.

The drainage of the valley of Mexico, a scheme held in mind since the great flood of 1553, was commenced in 1885, and finished in fifteen years at a cost of \$16,000,000. The city sewerage system was completed in 1900, after four years' work, at a cost of \$5,500,000. In 1900 a street-cleaning and flushing service was created. On January 1st, 1900, the electric light service of the city was made an all-night service. In 1899 the government contracted for new pavements: cement for the sidewalks and asphalt for the streets, in an area of 3,553,563 square meters.

The water supply of the city is still inadequate; that for the flushing of the sewers comes from Lake Xochimilco, flushing them every forty-eight hours. The drinking water comes from the western end of the valley, aggregating 40,000 liters per minute, besides 1000 public and private artesian wells, aggregating 20,000 liters per minute. The government has under consideration the bringing of drinking water in pipes from Xochimilco, while it is at present maintained that the springs in the Pedregal, or lava beds, to the south of the city, which are fed from the percolating snow water from the Toluca crater, would yield a large supply.

The death rate in the city of Mexico had steadily increased from 1853 to 1901, being 5944 in 1853 and 21744 in 1901. The death rate in 1903 is calculated at about 30 to the 1000, showing a decrease.

Ten years ago education was made compulsory among the Indians; in 1895, in the Federal District, there were 216 persons to the thousand who could read and write, and 45 to the thousand who could read. The percentage is now about one-half that. The Mexican capital has increased along all lines during the past thirty-four years, with the sole exception of pawn shops, which have decreased from 110 to 61. Some of the items are as follows:

	1867.	1902.
Municipal revenues	\$361,865	\$6,034,375
Municipal expenditure	\$56,000	\$6,008,532
Houses with water supply	343	7,238

Sui generis, this city stands unique. Athens has mountains and sea, but few plains; Rome has plains and low-lying hills, but no water; Jerusalem has

mountains, but no plains, no sea. Mexico has plains, hills and plains, and water as well.

This, the capital city, is located in the Federal District, in latitude 19 degrees, 26 minutes, 5 seconds, and on the meridian determined by the national observatory in the National Palace, from which measured east and west the longitudinal distance to the Republic. The altitude above sea level is 7000 feet, the measuring of the school of mines, 7000 feet. The city lies in longitude west of Greenwich 100 degrees, 6 minutes, 45 seconds, or 6 hours, 36 minutes, 45 seconds. The temperature runs from 35 degrees in winter to 110 in summer. The winter months are December and January. The annual rainfall averages 20 to three inches. The dominant wind is north; the cloud direction during the year is northward; the rainy season commences in June, generally on the 15th (St. John's Day), and closes late in October, and is considered the most delightful time of the year, with rains generally in the forenoon. This rainfall is a salvation of the capital, tempering the climate of the entire year.

Long since, the capital emerged from its chrysalis, a butterfly fit for the twentieth century. Steel and stone, marble, bronze and precious metals superseding the stucco work and the cheap plaster architecture of the past. The introduction of iron frames for building commenced five years ago. The Iron Palace, the Centro Mercantil and the Hotel are examples of this American architecture. The latter about 1000 tons of structural steel were used. August, 1903, Valentin, Elcoro & Co. received the carload of Mexican-made steel from the Monterrey and Steel Works, including massive beams for building purposes and their tensile strength was determined at 65,000 pounds per square inch—a record not beaten even at Pittsburgh. The old-time buildings of walls from six to ten feet thick, and in an earthquake would crack, whereas these modern buildings sway and settle. They are built in four to six months, whereas the old buildings took as many years.

The Mutual Life Insurance Company proposes to erect a \$450,000 office building, into which will be put up by Mr. Arthur Stillwell; the Equitable Insurance Company will put up a five-story modern building in Cinco de Mayo street. It is against the city ordinances to erect buildings over five stories, on account of danger from earthquakes. Mexico is in a fever of building; during July, 1903, the Public Works issued 937 building permits—on the 1st of 83 over the same period of 1902, and November, 1903, will show at least 1000 permits issued, for buildings to break up after the close of the rainy season. Twenty-three cities in the United States, ranging from St. Paul to New York, were during last May chosen by the city of Mexico in the number of permits for building; that month Philadelphia led with 472, Chicago came second with 622, Brooklyn with 472, New York with 472. In the first two weeks of 1903, more permits were issued in this capital than during all of May in any of those American cities. Philadelphia, while the cost of the new buildings exceeded the showing (in gold) of any American city except New York and Chicago.

The West End in Mexico is the fashionable part of the capital. In 1874 there was scarcely a building on Bucarelli boulevard, but a modern city has grown for two miles beyond. The Guerrero district was pasture land, and property went begging at two dollars per square meter, where the price now asked is \$100 per square meter. Paseo lands could then have been had at fifty cents, which now command \$50 per square meter. Along Bucarelli boulevard lands were sold twenty cents which bring now from \$25 to \$50 per square meter. Even lands near Chapultepec, sold at \$10 per square meter, were held in 1874 at \$1 per square meter. City prices for real estate have advanced phenomenally since 1874; on the corner of Santa Dominga and Tacuba the naked land was worth \$25 then, and is worth \$130. At the City Hall colonnade it was \$42, and it is now \$125 per square meter. Lands of the Plaza, which averaged then \$40, now average \$100. The ratio of increase in land value has been 2500 per cent in the vicinity of the Plaza and the Alameda. Improved property, the building on the corner of Santa Dominga and San Francisco streets, 75x100 feet, owned by the American Bank, was sold in 1874 for \$250,000, or about five times its value in 1874. From the point of Gore Court, the first American "flat" was built in Mexico six years ago, and which stood alone at that time, at least 100 houses are seen in columnar construction, costing \$2,000,000. There are a number of modern addition buildings: the San Rafael Hotel, the Colony del Paseo, the Stillwell tract, the Colonias and the Teja, where lands are now marketed at \$15 to \$30 per square meter; and when the project is carried out, now proposed by the Federal government, to move the Mexican National depot and yard back, another very large tract of land will be added to the West End of Mexico. Estimating at \$100 per square meter the area of the Mexican capital, in the next two years, and at the present rate of increase, the naked land on which the city stands will be worth \$1,000,000,000, with a population of 500,000 inhabitants.

The Federal government has under contemplation a partial construction a system of public buildings, which will make the Mexican capital the handsomest in Latin America. Whereas from 1851 to 1895 the government spent on public improvements in the city the sum of \$401,372, there were expended from 1900 to 1902 \$4,512,540. In the year 1902 the amount was \$1,274,781. The public improvements undertaken by the Federal government for the immediate future are: a monumental with the progress of the republic, the advance of its capital. Within a radius of 1000 meters of the Alameda the public buildings now under construction will cost at least \$25,000,000. The new Army building in the rear of the National Palace, within that radius, will be very imposing; it is constructed of Pachuca stone, a building which will cost \$2,500,000. The new facade of the National Palace, built in the rear of the San Hipolito house, is a part of the governmental system; a government and a new insane asylum are also to be built. The government. The new opera-house is to be built, and will front the Alameda. The Legislative building, though far removed from the Alameda, is to be built; it will be the most magnificent of all the buildings, covering 10,000 square meters.

the building in the government group to be completed in the past, on the corner of Santa Isabel and the street, adjoining the ancient School of Mines. This is the new building. This is a structure of steel and stone being constructed by the Milliken of New York. It will have 14,000 square meters of floor space and be a fireproof and earthquake-proof building. There is no woodwork, and the whole structure is so built together that in an earthquake it will sway but not break. In style it is of Mexican architecture—a beautiful argument in favor of the possibilities of that style in the modern movement towards the esthetic in building. The frame-work was commenced in August, 1902, and finished in five months—the quickest record for such work in Mexico. The stone, grey Patate stone, is now being fitted to the ribs of steel girders, the whole structure resting upon grill foundations cribbed up with steel beams, cement-filled. The weight of the big foundation is equally distributed over every portion of its base, insuring the even settling of the entire building, a method best adapted to the subject of the valley of Mexico, which is gradually changing to bed rock as the surplus water underneath is being drained off. The cost of the postoffice building will be about \$400,000, and the outside carving will be done by hand after the building is turned over to the government for occupancy.

This is the age of steel and stone and the witchery of electricity in Mexico. The transition is being effected easily, naturally and harmoniously. The old yellow oil lamp that used to merely emphasize the darkness of the streets of this ancient and honorable capital is now lit by a flame; electricity lights the streets, illuminates houses and drives the splendid street-car system of the city. As for architecture, there is springing up a modern renaissance, a school unique and beautiful, combining the domes and towers of the mission buildings and their colonnaded patios and sculptured niches—a wealth of suggestion; not too modern, to be devoid of the esthetic, and not too ancient to be superlatively ornate. Walls ten feet thick are no longer essential, and Mexico is too strenuous to engage in monumental. The colonial days will soon be but a memory of low-arched buildings, where mosses idly grow and vines creep, and while here and there, as a foil to the modern tendency of modern architecture, towers and domes are lifted into the picture, the buildings of tomorrow will be substantial and handsome. The poetry of paths have almost spent themselves. No longer does the "morning fall asleep" on dusty domes and old-palaces. The dawn is full-blown with promise. Today is strangely swift with purpose. Wending westward in phenomenal progress, the Mexican capital, seated in the heart of the Republic, panoplied in the reality of superb resolve, faces a radiant future.

GEN. DIAZ AT PUEBLA.

THE MAGNIFICENT ADDRESS TO HIS VICTORIOUS TROOPS IN 1867.

In the War of Intervention the city of Puebla was captured and seized by the victorious division of Diaz on the 24 of April, 1867. After the battle was over the great and grateful commander was amply justified in showing his victorious troops in the Napoleonic terms which he employed upon the occasion:

GEN. DIAZ TO HIS SOLDIERS.

Compañeros de armas! Quiero ser el primero en pagar a vuestro heroísmo. La nación toda y la posteridad os lo paguen a por, os daré vuestra gloria. Este día es una fecha memorable en la ciudad donde os otorgo su nombre y el 5 de Mayo. El 2 de Abril de 1867 se registrara desde hoy en el calendario de las glorias patrias.

Este día es de vosotros; os he visto acudir sin armas al llamado de la patria, para armaros en Minahuatlan y en Oaxaca, en Jalapa y en Oaxaca, con los fusiles como el enemigo. Habéis combatido desnudos y hambrientos, después a la capada un rastro de gloria; y sin armas, vuestras hazañas en Puebla han ido más allá de lo que os merecía.

Este día, sin razón denominada invicta, y que los ejércitos del mundo no pudieron tomar por asalto, queda a un solo empuje de vuestro brío. La guarnición de la ciudad ha sido material de guerra acoplado por el enemigo al trofeo de vuestra victoria.

Este día, por el bien de la patria. La lucha que la patria os ha dado ya prolongame. Acabais de dar la última de vuestro valor irrefragable. Quien osara medirse a los republicanos de Puebla? La independencia y las libertades republicanas no vacilaran ya; esta seguro de que la república no oprimida el país que tiene hijos como vosotros.

Este día es el combate y vobros en el uso de la victoria, que os merecía la admiración de esta ciudad por vuestro valor, y os merecía por vuestra disciplina.

Este día no tendria orgullo en hallarse a vuestra izquierda, como os merecía por vuestra gloria, y vuestra gloria os merecía por vuestra gloria.

[TRANSLATION.]

Comrades in arms! I wish to be the first in paying to you heroism. The entire nation and posterity shall perpetuate your glory.

This day has inscribed another memorable date in the city of Puebla. Immortalized his name and the 5th of April of 1867 will henceforth be registered in the calendar of our national glories.

This day is of great hopes in you. I have seen you respond to the call of the fatherland, to arm you in Minahuatlan, in the Carbonera, in Jalapa and Oaxaca, with the weapons of the enemy. You have fought and hunger, leaving behind you a track of glory; and you have achieved in Puebla have surpassed all that was expected of you.

This day, without reason considered invincible, and the soldiers of the world could not take by assault one dash of your courage. The entire nation and posterity shall perpetuate your glory.

You deserve well of the country. The struggle can be prolonged no longer. Who will dare oppose you? Your irresistible valor. Who will dare oppose you? The victors of Puebla? Independent institutions will waver no longer. A nation that has sons like you will be safe from all enemies.

This day is a battle and moderate in victory, you have

gained the admiration of this city for your bravery, and its gratitude for your discipline.

Who is the general that will not be proud to lead you? While you are with me, your friend will deem himself invincible.

PORFIRIO DIAZ.

FRAY MARCOS OF NICE.

[CONTRIBUTED BY THE HISTORIAN CHAVERO, OF THE NATIONAL MUSEUM, MEXICO.]

FRAY MARCOS of Nice, a Frenchman, a native of Italy, who came to America in 1531, and joined Pedro de Alvarado on his return from Ecuador, reached Mexico in 1532, and as curiosity had been stirred, and with it ambition, through the discovery of the Seven Cities, the Viceroy Don Antonio de Mendoza commissioned him to go in search of them in the year 1539.

This curiosity or ambition for conquest of wealth was confirmed by the fact that Cabeza de Vaca, together with the remaining members of the expedition which had gone to Florida, was about to start from Culhuacan or Culiacan, where he was in the year 1536.

The story of his journey was given by Fray Marcos in worthy of study, although it has, up to the present, been looked upon with indifference and he has been held untruthful; but I consider it a document of the greatest interest.

We all know of an important place in the North called Culiacan, which in the story told by Fray Marcos was called Culhuacan. The Franciscan friar started from this city on the 7th of March, 1539, taking with him Fray Honorato as his companion and the negro Estebanillo de Dorantes for his guide. He was also accompanied by a large number of Indians from the villages of Ytlan and Petatlan, distant about forty leagues from Culhuacan. After marching twenty-five leagues from Petatlan he reached the coast, and he relates how the Indians crossed over to the main land on rafts from the Peninsula of California, which was thought to be an island. In the small villages that on his journey he met at great distances from each other, he was told that on the other side of the Sierra there was a valley with numerous and large towns, populated by a people who dressed in cotton cloth, and who wore gold ornaments in their ears and noses, and employed scrapers of the same metal to clean off the perspiration from their bodies.

Continuing along the coast, and without crossing the mountains, he reached a town called Acapa or Huacapan, from whence he sent the negro Esteban to explore the country for about sixty leagues to the north.

A messenger came back from Esteban, and announced that at a distance of thirty days' journey from Huacapan there was a great city called Cibola, and that in the same province there were seven large cities with houses of

animals of the size of the greyhounds which the negro Esteban had with him.

After traveling for four days through a desert country, he found a lot of towns similar to the last, where they gave him the same report; and as he adds that he had reached the thirty-fifth parallel, and that the coast turned towards the west, it was evident that he had reached the country of Upper California. It is to be noted that in the design of the houses of Cibola, such as they are given, we can well perceive the form of the large houses (casas grandes), and mention is made of the ladders used for getting into them.

In this valley, through which he traveled for five days, he found numerous little villages, in which they cultivated irrigated fields that he compares to gardens, and there he spoke with a native of Cibola, who gave him the following information. The chief of the Seven Cities lived in Acus and appointed chiefs for the others. Cibola was a large city with streets and squares, with a large population and with large houses that rose to as many as ten stories, built of masonry, and in which the principal inhabitants met on certain days of the year. Of these Seven Cities the best was Ahacuz, and the nobility all called themselves Acus.

According to the same relation, there existed to the southeast of this province another one called Marata (which I believe ought to be Maclatlan), with which it was at war, and which had similar buildings and customs.

After traveling for twelve days through a desert country, in a direction which appears to have been easterly, Fray Marcos met a messenger from Esteban, who related that the negro, one day's journey before reaching Cibola, had sent to announce his arrival to the Lord of that city, by means of a calabash with bells and feathers; but that this Lord, immediately on taking it up in his hands and seeing the bells and feathers, threw it to the ground and ordered the messengers to leave the city at once under pain of death. He also reported that in spite of these threats Esteban boldly went to the city, but was not allowed to enter by the inhabitants, who placed him and his companions in a large house, where they were attacked on the following morning, with the result that more than three hundred of the expedition and Esteban himself were killed.

On hearing of this event, the Indians who accompanied Fray Marcos refused to go any further; but he continued his journey with his interpreter and two Indian chiefs, who finally consented to go with him, and thus he came within sight of Cibola, which he describes as follows: "It is built on the plain at the foot of a round hill; it is a handsome looking town, and the best that I have seen in these parts; the houses are built as I was informed by the Indians, all of stone, with upper stories and flat roofs, as I could see from a hill which I ascended for the purpose of observation, and the population is greater than that of the City of Mexico."

The two Indian chiefs who accompanied Fray Marcos told him that Cibola was the smallest of the seven cities, and that Totontec was the largest and best of the seven, with innumerable houses and people.

Unable to go any further, and fearing that he would finally lose his life, Fray Marcos returned from his expedition.

Bearing in mind the information received, the Viceroy sent out another expedition the following year, 1540, under the Governor Don Francisco Vasquez Coronado, in search of the Seven Cities; and on the 23rd of November of that year he executed an agreement for the same purpose, with the "Adelantado," Don Pedro de Alvarado.

Coronado was unable to find the Seven Cities and declared the report of Fray Marcos of Nice false.

Ever since then the report of Fray Marcos has been discredited; but nevertheless it is only necessary to read it to see that it has in itself all evidences of authenticity. He gives an exact statement of places and distances, gives names and describes customs without contradicting himself in any case, and he also enters into details that could not be the result of a too lively imagination. Besides this, the veracity of the first Franciscan friars is well known, and as a further proof, he protested the truth of his report in a sworn statement that he signed in Mexico on the 23 of September, 1539, before the Viceroy, Don Antonio de Mendoza, and in presence of the Licentiate Francisco de Ceynos, member of the Royal Audience, Francisco Vasquez Coronado, Governor of New Galicia, above mentioned, and in presence of these gentlemen and the notary, he ratified the truth of his statement. Any person who knows these persons and those times will feel no doubt whatever as to the truth of the report.

Modern investigations in New Mexico that have been published in the United States (5.) confirm several points in the story of Fray Marcos, and explain how Vasquez de Coronado missed the proper road to the northeast, and leaving the Cities to his left, came to the deserts of the Gran Quivira.

ALFREDO CHAVERO.

MEXICAN PICKPOCKETS.

[Mexico Correspondence.] To a supersensible degree the fine Italian hand is still to be met with among Mexican pickpockets. They are noted for their artistic performances in light-fingered legerdemain. Only a few months since the Chief of Police of an American city, whose name need not be mentioned, was robbed of his watch twice within two days, and finally the timepiece was returned to him by the very "ratéro" who had taken it, nor did the American officer have time to catch the thief, whose audacity threw him off his guard. Why the pickpocket took the trouble to restore the watch, for which he was able to realize a month's wages at the nearest "empeño" is not clear, but perhaps he heard the owner talking of the smart pickpockets in his own country, and the Mexican took such pride in his own professional ability that he took occasion to rebuke the American.

The Mexican pickpocket has all the cunning of the Hindu, and the dash of the Italian, his brethren in crime, and none of the pickpockets of Benares or Naples can exceed the craftiness and ingenuity, the sublime audacity of the Mexican pickpocket, and it is said they carry on regular classes in the line of their hazardous employment something like the schools in New York, but which have to "move on" constantly, due to the perspicacity of the Mexican police. But these ill-favored gentry do not find life wholly successful now, as they did in times past, for the police cover and cow them, much to their disgust, the profession therefore retains its rakishness, but has been reduced to its power over the afflicted public.

Mexico sells more than three-fourths of her products to the United States, and takes it practically all out in trade. Notwithstanding the fatherly protection of the Monroe doctrine, Uncle Sam, who buys \$125,000,000 worth of South America's products a year, is only able to sell the same Southern States his products to the value of \$23,000,000. Some day Uncle Sam will realize what his children who live down there long ago found out—that the South American republics do not look up to the United States as the great and desirable pattern for their ambitions. Their tastes and their sympathies are naturally with parent countries of Europe in everything except their own independence.—[Modern Mexico.]

Mexican Indian names of places sometimes have queer meanings, for instance, Chapultepec means "hill of the grasshopper." Chilpancingo means "the home of the little red bug." Iguala, "sunshine after the storm." The word "pec" (used as an ending) means "place."



ALFREDO CHAVERO.

The Mexican Republic—Geographical, Statistical and Descriptive

GEOGRAPHICAL.

THE REPUBLIC OF MEXICO lies between parallels 14 degrees 30 minutes 2 seconds and 32 degrees 42 minutes of latitude North, and between 12 degrees 21 minutes longitude East of Mexico City, and 18 degrees longitude West of Mexico City. The republic is bounded on the north by the United States, on the southeast by British Balaie and the republic of Guatemala; east by the Gulf of Mexico, and west and south by the Pacific Ocean. The surface is 1,967,201 miriars (square meters), the greatest length 328 kilometers northwest to southeast, starting from the initial point on the Pacific Coast of the dividing line between Mexico and the United States, to the Suchiata plantation near the mouth of that river in the Pacific. The greatest width east and west is 128 kilometers from the mouth of the Rio Grande to the mouth of the Rio Fuerte. The narrowest point is the Isthmus of Tehuantepec, 218 kilometers, from the bar at Coatzacoalcas to San Francisco del Mar on the Pacific.

The republic is divided territorially into four groups, with the following surface: Central, 372,489 miriars; North, 638,032; Gulf, 323,610; Pacific, 629,037; and the surface of island possessions of the republic, 4042 miriars, complete the total of 1,967,201 above mentioned.

The republic has a coast line of 8330 kilometers, of which 2580 fringe the Gulf of Mexico and the Antilles, and 6250 the Pacific Ocean and the Gulf of California. The peninsula of Lower California alone has 3000 miles of coast line, while along the Gulf of Mexico and the Antilles, Tamaulipas has 400 kilometers of coast, Vera Cruz 467, Tabasco 190, Campeche 360, and Yucatan 990. On the Pacific, Sonora State has 860 kilometers of coast line, Sinaloa 510, Tepic and Jalisco 500, Colima 100, Michoacan 130, Guerrero 460, Oaxaca 410, and Chiapas 230.

Mexico has the highest peak in North America, higher than St. Elias in the United States. This is the peak of

tour; residence, Avenida Corpus Cristi No. 8, and country home, Mixcoac; office, National Palace. Minister of the Army and Navy, General of Division Francisco Z. Mena; residence Ribera de San Cosme No. 12; office National Palace. The Assistant Secretary of Foreign Affairs is Honorable José Algara, and during the absence of Mr. Mariscal, Mr. Algara is acting as head of the Cabinet; his residence is 2 Callejon de Santa Clara No. 9, and his office Avenida Patoni No. 6. The Acting Governor of the Federal District is Honorable Guillermo Landa y Escandop, who lives at Puente del Espiritu Santo No. 3; offices in the City Hall. The Military Commandant of the Plaza is General of Division Francisco A. Velea, who lives at Calle Cadena No. 12, and whose office is in the National Palace. The Chief of the Palace, in charge of the Palace and the Castle of Chapultepec, is General Agustín Pradillo, who lives at 5 Sor. Inés de la Cruz No. 2034, with offices in the National Palace.

The ladies connected with the official family are: Mrs. Carmen Romero Rubio de Díaz, wife of the President; Mrs. Laura Smith de Mariscal, wife of the Secretary of State; Mrs. Amparo Escalante de Corral, wife of the Secretary of Interior; Mrs. Lus Acosta de Gonzales Cosío, wife of the Secretary of Encouragement; Mrs. Louisa Alorriaga de Fernandez, wife of the Secretary of Communications; Mrs. María Cañas de Limantour, wife of the Secretary of the Treasury; Mrs. Sofia Osio de Landa, wife of the Acting Governor of the Federal District; Mrs. Carlota Cañizo de Velez, wife of the Military Commandant; Mrs. Carmen Sequero de Pradillo, wife of General Agustín Pradillo.

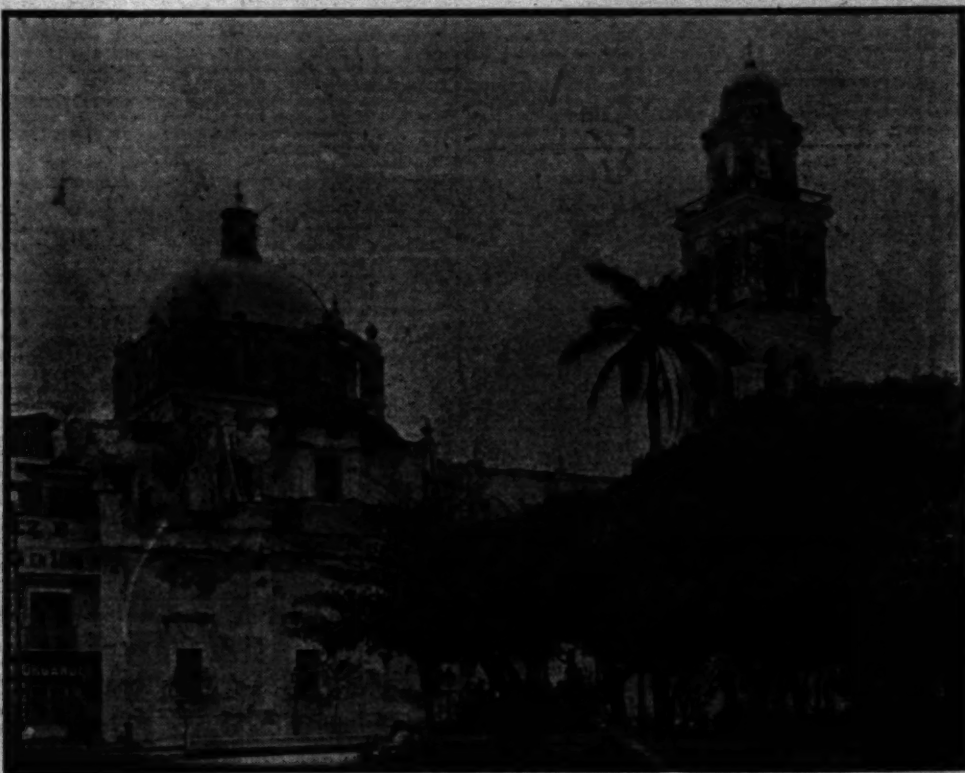
The dean of the diplomatic corps is General Powell Clayton, the American Ambassador. The Secretary of the United States embassy is Fenton R. McCreery, the second secretary, William Heimke; the third secretary, Philip M. Hoeftle. The embassy is located at Buena Vista 44, which is reached from the city by the Santa Maria line of street cars.

back to the Mexico of now. There was no road, and nowhere was travel more unsafe. By crossing the road, even into the very heart of the city, one "dido" robbed and murdered. There were no telegraphs, no telephones, practically no communication, bottom of all, no security. Today Mexico is a different country—the safest country in America. Liberty, human rights are even more secure than of old. As for stability, the record speaks for itself. In sixty-two viceroys in 326 years—not very long, but it also had fifty-two presidents, emperors and heads in fifty-nine years of the nineteenth century, one president for twenty years. Some will say it is not republican. Possibly not, but it is better than all the mistakes of foreigners as to Mexico, groping than that which disparages its government. It does not know anything in history which fairly parallels twenty years in Mexico. It is not far from the truth that there was not a railroad in Mexico, and when material conditions were in proportion. The country has forty railroads, with nearly 7000 miles of track, everything that that implies. Its transportation facilities are practically as good as those of the United States, and the investment is far more profitable, with (telegraph lines (with the channels of America,) dotted with postoffices, schools, courthouses for public business and public buildings, freer than it ever was before, with free speech, free press. There is progress everywhere, intellectual, moral."

The above picture necessarily fastens the eye on Mexico. Memory tries to pick up its forgotten and see the picture of the past; upon crumbling ducts, deserted convents, empty churches, monuments with weary wing.

Of the Americans who entered this valley in the Stars and Stripes, but few remain; they are the club called the Aztec Club, and this is the history. On the 13th of October, 1847, as soon as the United States army was quietly established in the city, a meeting of officers was called with a view of the Aztec Club and opening a club house for the entertainment of its members and their guests. It is not known that any record of the early proceedings of the club thus formed, but following were among the promoters and took part as club officers from the start; General Smith, as president; Capt. J. B. Grayson and Capt. J. B. Smith, as first vice-presidents; Capt. J. B. Smith, as second vice-president; Lieut. R. F. H. as treasurer, and Capt. George Deas and Capt. Coppee, as secretaries. The original house of the club was the handsome residence of Señor Bernal, who had been formerly Minister to the United States in Mexico, and was located on one of the streets of the Calle de Plateros. On the 13th of January, a constitution was adopted and a new election held. The initiation fee was made \$30, payable in Gen. Winfield Scott and Capt. John M. Smith elected honorary members. On March 4, 1848, a constitution of the club, a constitution with a list of members was printed at the office of the American Consul. The Aztec Club was held in May, 1848, and was determined that no satisfactory plan could be proposed for continuing the existence of the club, returning to the United States, but "desiring to leave some lasting memorial of the pleasures and benefits derived from this institution that may serve as an additional bond of friendship and fellowship among its members." It was resolved that the constitution of the club shall continue with its present force for a period of five years from the 1st of September. At the time of the withdrawal of the army from the city, the club consisted of 100 members and 100 members. In 1853 an election of new officers was accordingly, but no regular meeting of the club place and a day for the next annual meeting was distributed, and a commemorative badge was issued for transmission to living members and to the families of those deceased. The action taken at the meeting submitted to the survivors of the Aztec Club, and affirmed by votes returned to the secretary, C. C. Gilbert, U.S.A. (retired), and John M. Blanding, of Sumter, S.C. There are several living who were officers of the army during the war and who served with the army in Mexico; these two are the only survivors of the club.

The story of old Mexico as it was fifty years ago told charmingly by Maj. Robert B. Gersbach, who lived in this country and had here an active career. In 1850, when he was practicing his profession in New York as a civil, hydraulic, mechanical and electrical engineer, there was not one foot of railroad in the States between the Mississippi and the Pacific, though the project of the Missouri and Pacific was in the air. Forty-five years ago the only railroad in Mexico was a short line from the port of Vera Cruz to the city of San Juan, owned by Gen. Juan de Dios, 1850 Moss Brothers, of Mexico, who had a line from Santa Ana to extend that line to the city of Mexico. Juan Lopez y Magui, a civil engineer, was sent to secure the services of some American engineer for that work. Maj. Gersbach came by the Mobile to Vera Cruz in April, 1854, and remained to the capital. When he arrived, Santa Ana had removed from the practical dictatorship of the country, was succeeded by President Comonfort. If any foreigners in the city, which was then a city of oil lamps. Peons earned twenty-five cents a day and lived better than they do now. There were saloons full of alcoholic poisons until they brought them here. Wine was used at the better classes as commonly as coffee is now. The schools were under church control. It was done by this old-timer was in connection with the route for the valley drainage canal, and he personally participated in the survey of the route from Vera Cruz to Mexico. A short line from this city as far as Guadalupe, to demonstrate the ability of the line to the Gulf. An engineer Baldwin works, costing at that time \$100,000, bought for this little line, also four cars for the American factory. The iron rails came from the Vera Cruz, and by wagon to the Spanish road, each carrying 12,000 pounds, drawn by twenty-two mules. The conveyances crossed at one point on the Rio Frio or Cold River, 11,000 feet above sea level. On July 4th, 1857, the short line from Mexico to Guadalupe was inaugurated. It was the first train pulled out, the people waiting for weeks the cars upon the little line.



PLAZA AND CATHEDRAL, VERA CRUZ.

Orizaba, known by the old Aztecs by the name of Citlatepetl, and its height is 5700 meters, while that of Popocatepetl is 5452 meters; Ixtacchualt being third in the list, with a height of 5296 meters. These figures are official, being the findings of the Mexican Geographical Exploration Commission, as published in the Official Bulletin for 1901 of the Mexican Department of Encouragement. There are several other high peaks, such as Malinche and Toluca, but the three volcanoes above mentioned lead the list. The highest point reached by a railway in the republic is La Cima, a station on the Cuernavaca branch of the Mexican Central, with an altitude above sea level of 3040 meters; second comes the station of Salazar, on the Mexican National, 3000 meters; third, Las Vegas on the Vera Cruz Railway, 2421 meters, and Boca del Monte on the Mexican Railway, 2415 meters.

Government.

The government of Mexico is conducted as a Federal Republic, after the pattern of the United States and Switzerland. The courts are organized on the American plan, although the law is predicated more upon Roman than English common law. The President of the republic is elected for a term of four years, and he appoints the members of his Cabinet, composed of seven.

The following is the personnel of the government: President of the Republic, General of Division Porfirio Díaz, residence, Castle of Chapultepec; city residence, Calle Cadena 8, and offices in the National Palace. Minister of Foreign Affairs and Vice-President of the republic, Honorable Ignacio Mariscal; residence, Cerrada de la Moneda 8; office Avenida Patoni 6. Minister of the Interior (who has charge of the interior matters, such as the relations of the Federal government with the different States, as in the United States,) Honorable Ramon Corral; residence 4 Artes No. 2; office, 1 Humboldt No. 5. Minister of Justice and Public Instruction, Honorable Justino Fernandez; residence, Tiburcio No. 4; office, 1 del Reloj. Minister of Fomento, Colonization and Industries (Encouragement, who has jurisdiction over concessions, mining, colonization, patents, etc.), General Manuel Gonzalez Cosío; residence 1 Mesones No. 11; office, School of Mines, Calle San Andres No. 15. Minister of Communications and Public Works (who has jurisdiction over railroads, steamships, telegraphs, etc.), Honorable Leandro Fernandez; residence, Glorietta de Cuauhtemoc No. 452; office, ex-Aduana de Santa Domingo. Minister of Finance and Public Credit, Honorable José Ives Liman-

Reception hours are from 9 a.m. to 12:30 p.m. The days of reception of Mrs. Clayton and daughters are Fridays from 5 to 7 p.m. The American Consul General is Andrew D. Barlow, and the Vice and Deputy Consul-General, Edward M. Conly. The consulate is located Calle Colon No. 8, one block west of the Alameda. The Consul certifies to invoices of shipment to the United States of over \$1000 gold; he issues certificates of marriage, but always after the civil rite has been complied with; he issues certificates of disinfection, of landing for liquors bottled in bond for the United States; visas passports; takes possession of estates of American citizens dying in Mexico, delivering effects to legal representatives or to the Treasury Department of the United States; takes acknowledgments of transfer of United States bonds, and administers oaths free to pensioners. The Consul acts as notary general. A register for American citizens is kept at the consulate. There are American consular representatives in every city and town of importance in the republic.

Descriptive.

Entering this country one catches the perfume of Shakespeare's words, "That strain again—O it came o'er my ear like the sweet south that breathes upon a bank of violets, stealing and giving odor." Behind him is the greatest country on the globe, but with the rudest climate, while the fingers of frost twist and tear the lovely flowers and cripple the crops; ahead of him is the Mexican land of summer and sunshine, where frost is practically unknown and flowers and fruits are eternal. The Mexico of today is a new world, and perhaps it is best epitomized in the admirable words of Charles F. Lummis under the title of "The Awakening of a Nation": "It is no longer old Mexico; while in the United States we have been achieving a material development, she has wrought the political and social miracle of the century. Within less time than has elapsed since our Civil War invented millionaires, Mexico has stepped across as wide a gulf. From a state of anarchy-tempered by brigandage, she has graduated to the most compact and unified nation in the New World. She has acquired not only a government which governs, but one which knows how to govern and, contemporaneously, a people which has learned how to be ruled. Only those who seriously knew the country in the old days can at all conceive the change from the Mexico of a generation

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MEXICO, which made in the receiving in thought, as every progressive Englishman the stimulus of the situation of the country above, making of its development and its development of the thought of the day. The invasion of America that already made Mexico a combined nation is a moment and bold peaks and plains wide and marvelous combining all parts at the top, the bottom of the land, the strong Spanish the planet, and all in increasing per-

Many Rains. The history of the matter of fact, from the Executive almost of the Hidalgo, Turbide, Comonfort, Zuloaga, Diaz, the last name permanence and the greatest man of the continent, given the name Juarez, the man who when Napoleon after America, who there of Holland and there was born a man who was the ambitions of the world-wide movement, who stood in the heart of conscience "Little Indian," as Juan V. Luther p. principle that led Juan V. Luther. Such is the history of the United States from the smoke of the northern part of the northern moral endeavor to emancipate the thinking Americans with affection for the designs of the pages of Mexico, intervention of 1847, with

International

Contiguity of territory, sympathy in national and independent United States of Mexico, a spirit of camaraderie, the past quarter of the increasing trade relations from all the rest of the world, its imports being from the United States. Where in 1878 it was a dozen American ships of at least 6000 tons, these American ships for the Mexico, like Pearson & Co., the many business propositions, the development of this transcontinental development, the possible by the in 1890 5 per cent. of the value is engaged in the development is the development of the world, when fully appreciated, the natural neighbors of the agricultural railroad, the advent of the United States of world powers in "our times," he spoke here appreciated that fact, to create and encourage the United States. The assurance of the "new," should not be made by Uncle Sam, commercial ascendancy, the States must cultivate the statistical tables of the country during the years were exported of all kinds of cotton textiles, preceding year, a gain of 100,000 pounds sterling. The value of the goods (imports) showed a gain of more than 100,000 pounds. The competition of the new goods here in 1890 amounted to 100,000 yards in 1891.

Injurious Trade

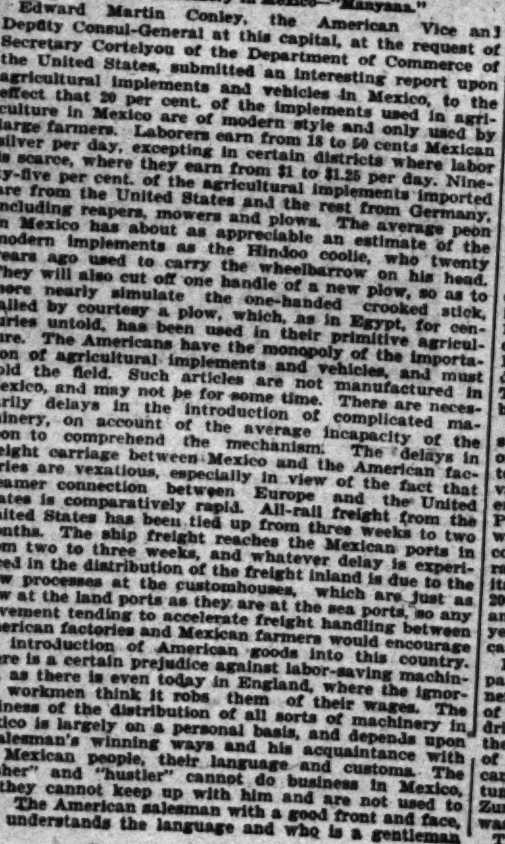
communications of Mexico were numerous as to be named. This means that from the Gulf are to be found one English. The cotton and complicated by the customs officials and Mexico. The merchandise ordered from the merchants and manufacturers at a time, are discouraged the receipt of raw materials from manufacturers. The merchants at the forefront of the enactments of the free manufacturers are aware

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has thus formed, but the
promoters and took an ac-
tive part; General Quiro-
ga, Grayson and Col. C.
Capt. J. B. Magraw,
Lieut. R. P. Hammond,
George Deas and Lieut.
the original home of the
of Señor Bocanegra,
to the United States in
one of the streets leading
On the 13th of January,
and a new election was
made \$20, payable in ad-
Capt. John McCarthy
On March 3, 1848, in
stitution with a list of mem-
the American Star. A
held in May, 1848, the
satisfactory plan could be
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the next annual meeting
members ordered to be printed
memorandum badge to be
members and to the
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ing of the Astec Club and
to the secretary. Of all
club, but two survive,
retired,) and Judge James
There are several mem-
bers of the army during the
with the army in Mexico,
survivors of the founda-

as it was fifty years ago
Robert B. Gorsuch, who
had here an active career
was practicing his profes-
sion of hydraulic, mechanical and
the foot of railroad in the
Mississippi and the Pacific
Missouri and Pacific
Chicago the only railway in
the port of Vera Cruz to be
formed by Gen. Santa Ana
Mexico, who had a contract
that line to the City of
a civil engineer, to the
offices of some American
Gorsuch came by steam-
April, 1854, and thence to
arrived, Santa Ana be-
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earned twenty-five cent
they do now. Living was
foreign goods. There was
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the Gulf. An engine
at that time \$24,000
line, also four coaches
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1857, the short line was
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visitors came to cele-
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on the little line of the

tions of Mexico with Europe are daily numerous as far as the transport of goods means that new services of steamships are to be organized, one German, one English. The merchants here are tired and complicated rules and regulations of customs officers at the border of the United States and Mexico. The delays in the receiving of goods ordered from American factories by European manufacturers, sometimes three weeks, are discouraging, as are also the delays in the transport of raw material from Mexico by the American manufacturers. The goods often lie for weeks at the frontier, coming or going, under the weight of red-tape regulations. Europeans are aware of this and will not be

In 1864 the government appointed a commission to prepare plans for an adequate drainage system, and the eminent engineer, Francisco Garay, was placed at the head of the commission. The plans called for a tunnel to be driven through the northern side of the valley, to which the valley waters were to be carried to drain the excess of the lakes as well as sunken ditches and navigable canals. He proposed to drain Lake Texcoco entirely. The tunnel was to commence on the northern shore of Lake Texcoco and empty into a ravine called Ametlac, and was to be about seven and one-half kilometers long. The project at present is a modification of the ideas



policy for the issue of the gold standard. As yet Mexico is not ready to adopt the gold standard, for the reasons above stated, and other elements must be brought into life, such as agriculture and industries, in order to bring about that step.

RAILROADS AND SILVER. Railroads in Mexico have been constructed almost entirely with American capital and their interest service is payable in gold. They have to pay in gold the expenses of material, and for their coal, which is imported from the United States. On the other hand, the revenue of the railroads is in silver, and every point that silver drops is a stab at the interest. It is said that the Mexican Central Railroad alone loses \$160,000 a year for every cent of reduction in the price of silver. The railroads therefore suffer on this account perhaps more than any other industry, and the more is the pity. Nothing has done so much toward the development of the country as its fast-growing railroad system. The adoption of the gold standard in Mexico would protect the national interests.

SILVER AND SILVER. With the exception of the



VIEW OF XOCHICALCO, NEAR CUERNAVACA

national bank, all Mexican banks have been instituted with capital, foreign and domestic. The Bank of Mexico and Mexico was built up of British capital. The revenue of the capital has been made in silver; the dividends and profits are in silver, the dividends are payable in silver, and as their entire banking system rests on silver basis, it may be said that banking interests would not suffer as much as other interests in the event of the white metal. The fluctuations in the price of silver do not, therefore, injure the Mexican banks, for the latter do not owe gold-standard countries, but the speculation in exchange generally operates to their benefit. It is calculated that the banks in the country are earning actually about \$1,000,000 per annum on their exchange commissions. While in their local banks Mexican banks do not suffer, they might suffer if they reach out and enter obligations in gold currency to increase their business, for then they would be forced to pay in gold. Employing foreign capital they contract loans payable part in gold, and therefore they cannot successfully operate upon a silver basis. On the other hand, foreigners purchasing interest in Mexican banks, however their gold in silver equivalent, and have to bear the eventualities of the white metal. Foreign capital in Mexican banks has generally been a safe investment, and sometimes there have been dividends of 10 per cent per annum, but the foreigner who has invested in the last twelve months ago, for instance, would lose his money by trying to reduce it into its original element, inasmuch as the fluctuation in exchange. This tends to discourage people in the United States from putting their money into the local banks here. The adoption of the gold standard would therefore benefit the national banks.

SILVER AND SILVER. Mexican commerce with the United States is gold and silver consumption may be claimed to be particularly affected by the low price of silver or the high price of gold, for they are produced upon the silver basis and purchased on the same, making their value payable in gold, and they have to be sold for gold. The cost of transportation to the United States is payable in gold, and they have to be sold for gold. The merchant has to run the risk of exchange, and being favored by its rise, and credits run for eight months, the element of speculation is introduced, and therefore Mexico's foreign commerce would be based on gold, while the gold basis would also protect the national relations in Mexico.

MANUFACTURES AND SILVER. The wages and other expenses in manufactures are paid in gold, protects national industries, and manufacturers have to compete with foreign goods in Mexico are yet very unsatisfactory, on account of the high price of "materia prima," the high cost of the lack hitherto of railway connections, and the high tariffs. The government therefore has a policy of protection to national industries, by



GUANAJUATO.

high duties upon foreign articles that compete with the domestic. There can be no fear for native industries, for the adoption of the gold standard, but they are benefited thereby, especially as foreign capital is thereby invited than under a condition of exchange.

SILVER AND SILVER. The value of property remains the same whether the standard is silver or gold, but the owners of lands and property would doubtless be benefited by the adoption of the gold standard.

CAPITAL AND MEXICAN SILVER. The placing of Mexico on a gold basis would protect the intervention of foreign money, which would be more readily available, and the country could then easily find a market in the United States and Europe, and foreign capital would be invited to invest.

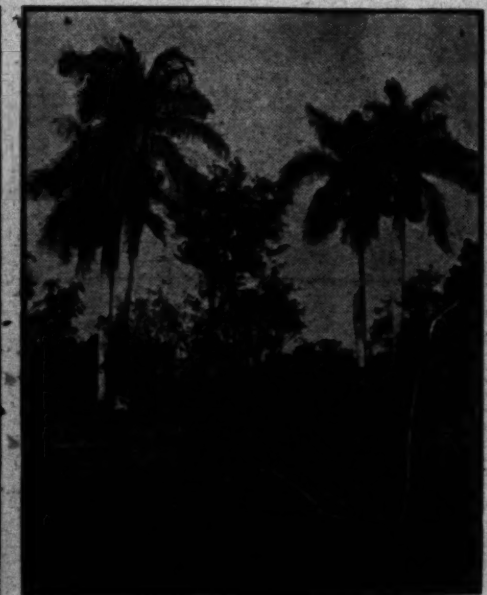
SILVER AND SILVER. This is perhaps the most

and very low now. With respect to ordinary labor, which runs from 37 cents to 50 cents for the pesos, that labor could not suffer, although expert labor might be somewhat affected by the increase of the purchasing power of gold. On the other hand, wages ought to appreciate in Mexico, and thus invite immigration. As a whole, probably the gold standard would favor the Mexican working classes.

FEDERAL REVENUE AND SILVER. The revenue of the Federal government is employed twofold. The payment of the current expenses of the country and the lifting of the foreign debt, whose interest is payable in the yellow metal. The lowering of the price of silver does not help the Mexican government, but it hurts it, for it needs more silver in order to buy the gold necessary for the payment of its service in securities. Furthermore, Mexico being upon a silver basis, does not enjoy abroad the credit it would if it were on a gold basis. The gold standard would certainly be welcome to this government.

COINAGE AND SILVER. While Mexico has exclusively a silver basis, the mints are open to free coinage of gold and silver. The monetary unit is the peso, created under Article 1 of the Law of November 28, 1867, after the downfall of the Maximilian Empire. There are eleven mints which receive for assay and coinage any quantity of gold and silver carried there by private capitalists. The proportion of coinage is of 1 to 16½. The coinage fee for either metal is 2 per cent. In the payment of taxes the government admits all coin which is legal tender, without any limit as to the amount of metal either in gold or silver coin. The Mexican silver peso circulates not only in the country, but also under the name of "plaster" in some of the Central and South American States, as well as in Asia and Africa. A large amount of the silver coined is exported from the country. The following are the weights, legal standard and value of the Mexican coins.

GOLD.				
Denomination.	Weight in Grammes.	Weight in Ounces.	Legal standard.	Value in U. S. Gold money.
20 pesos.....	33.841	522.234	0.875	456.954
10 pesos.....	16.920	261.117	0.875	228.477
5 pesos.....	8.460	130.558	0.875	114.238
2 1/2 pesos.....	4.230	65.279	0.875	57.119
1 peso.....	2.115	32.639	0.875	28.559



ROYAL PALACE, CUERNAVACA.

SILVER.				
Denomination.	Weight in Grammes.	Weight in Ounces.	Legal standard.	Value compared with U. S. silver money.
Peso.....	27.073	417.790	0.9027	27.170
50 centavos.....	13.536	208.895	0.9027	13.585
25 centavos.....	6.768	104.447	0.9027	6.792
10 centavos.....	2.707	41.778	0.9027	2.717
5 centavos.....	1.353	20.889	0.9027	1.358

Stock of metal 1901: Gold, \$3,000,000; silver, \$100,000,000. Stock in metal per capita: Gold, \$4.33; silver, \$7.45; bank notes, \$4; or a total of \$12.48 per capita.

In 1899 the world's production of silver was \$167,224,307, of which Mexico produced \$5,612,000. Since that time Mexico has taken the first place in the production of silver. The first silver sent from Mexico to Europe was in the year 1532, and was obtained from the mines of Tasco, in Guerrero, discovered by the Spaniards in that year.

COINAGE.

"The Mexican peso," says St. Claire Dupont, "is the most universal coin and the commercial money 'par excellence.' The Austrian thaler of Maria Theresa of the year 1780 is the only commercial coin that compares with the Mexican, and both pass upon their face value alike in Africa and Asia, although the Mexican coin is more acceptable than the Austrian in the Far East. It was even preferred in the United States until 1857, and found currency in the British colonies about the close of the seventeenth century. The pesos assayed by Sir Isaac Newton contained 3.567 troy grammes of fine silver; those coined after 1825 contained 3.53 grammes, and those coined after 1871, 2.774." As under the law of March 18, 1890, each 4.44 grammes of silver was equivalent in sterling coin to 20.52—3.53 grammes of fine silver, therefore for 150 years the Mexican peso was coin current in the United States. Mints were established in Chile and Guatemala in 1751, whereas mints had been established in Mexico City, Bolivia and Santa Fe, New Mexico, in 1535.

As late as 1873, when the United States demonetized

	Troy grammes.	Standard.	Fine silver, grammes.
Mexican peso.....	417.15-17	302.7-3	24.47
Japanese yen.....	416	300	24.260
American dollar.....	412.1-2	300	24.067
Hongkong dollar, 1st issue.....	419.1-20	300	24.425
Hongkong dollar, 2nd issue.....	416	300	24.250
Trade dollar.....	420	300	24.491

The value of these coins, predicated to the American dollar of 412½ troy grammes, was:

American dollar.....	\$1.00
Japanese yen.....	1.00 61-100
Mexican peso.....	1.01 85-100
Hongkong dollar, 1st issue.....	1.00 86-100
Hongkong dollar, 2nd issue.....	1.00 65-100
Trade dollar.....	1.01 85-100

Various causes have contributed more recently to a loss of ground for the Mexican peso, due to rivalry of other commercial coin, the establishment of a national coinage in the British and French colonies in the East, and tendency in China to set up a national currency. The Mexican peso ceased to circulate in the United States after the promulgation of the Hamilton financial bill, and



AGUASCALIENTES.

by the middle of the nineteenth century the peso had ceased to be coin current in any country on the American continent except Mexico, although it still holds strong ground in the Philippines, Japan and China. In a few years it will cease to be legal tender in the British and French colonies, and perhaps even in China; hence the tendency to create a fixed value of 45 to 50 cents gold for the Mexican peso. The total coinage of Mexico from 1537 to 1902 (June 30th) was \$3,609,776,553.

MINES.

MEXICO possesses mines of almost every known mineral, which have hitherto dwarfed the agricultural development, by no means insignificant, for Mexico has over sixty different classes of agricultural products. As a silver country the early Spanish history of Mexico is suggestive: She replenished the depleted coffers of the Old World, and the whole power of Spain was exerted to make the mining of silver the sole occupation of the people. All other commercial undertakings were interdicted, and even the olive trees planted during the early occupation were by order of the Spaniards cut down. It is not strange, therefore, that Mexico should be among the last of the nations to surrender her silver standard to the demand of the commercial world, or that she should stand in so little awe of Wall Street.

Silver, Gold and Coal

She has produced enormously of silver; more than two-thirds of all that metal in use. Even other metals were neglected, but gradually a change has been coming. Ten years ago the silver production was \$55,000,000 and the gold \$1,000,000. Last year the silver production was \$72,000,000 and the gold \$9,000,000. Base metals have been neglected too long in Mexico, as can be seen by the present scramble for iron and the search for coal. In the latter case carboniferous beds have been successfully discovered in Sonora, Michoacan, Oaxaca, Puebla, Guerrero, Vera Cruz, Coahuila, Nuevo Leon, Tamaulipas, Tlaxcala, Mexico and other States; among the specimens some assessing 82 per cent. of coal, with heating power from 58 to 82. The chief coal region of Sonora is about 100 miles from the Yaqui River, an oblong basin surrounded by mountains. The coal layers there overlie a strip of country nearly 7000 square miles in extent. Coal of the best quality has been discovered in the region close to San Marcial, where at a depth of sixteen feet it is found in beds six and seven feet in thickness and occupying an area of more than 1000 square miles. In large quantity and of excellent quality, coal has been found in Tula District, Michoacan. Oaxaca and Puebla have coal strata which are now being investigated. As to iron, this country is said to have the largest natural deposit of iron in the world, near the city of Durango. There are twenty iron furnaces throughout Mexico, apart from the big Monterey plant, with a united capacity of 60,000 tons per annum. The cost



GENERAL VIEW OF GUADALAJARA.

of producing pig iron in charcoal furnaces in Mexico is estimated at \$20 to \$25, and bars at \$40 to \$50 per ton. The iron and steel foundry at Monterey is turning out about 250 tons of steel daily, an output as good as any in the United States. They are making structural beams and pig iron, and will soon be turning out steel rails, the first made in Mexico.

Copper and Other Metals.

Antimony, copper, cobalt, sodium, nickel and other metals have been more or less worked. The copper industry in Mexico promises well. In 1902 Mexico was third on the list of copper-producing nations, the United States being first and Spain and Portugal combined being second. The exports of copper in May, 1902, were 3144 tons, valued at \$1,116,700, while the exports of copper and copper ores during the first eleven months of the fiscal year 1902-03 were 51,044 tons, valued at \$15,325,392. The silver production in the first eleven months of the fiscal year 1902-03 was \$75,430,4

Agriculture in the Republic--Information from the States

SOIL AND CROPS.

MEXICO has for many centuries been regarded as a continent par excellence, and, as a matter of fact, the coinage of nearly four billion dollars within the last century bears out that view, but Mexico is awakening along other lines of endeavor, prominent among them being the development of her agricultural resources. The Mexican country, now less than half its former size, is a cornucopia, with its open mouth reaching towards its "big brother," as Gen. Diaz is fond of saying the United States. Millions of American capital have already been poured into that open cornucopia for the development of the national industries, the agricultural wealth, and the mineral enterprise of Mexico, as well as for the creation of that system of steel nerves, the railroads, through which new life is so rapidly permeating this southern country, even to the tropic termini of Chiapas and the sandbanks of Yucatan.

The republic of Mexico has soil of five distinct qualities, so rich in some places that it will raise three crops

alleys 1 and 7 of Mexican longitude. The entire peninsula of Yucatan, with the exception of the sandy coast, is of calcareous formation, and this formation runs into the State of Chiapas as far southwest as Cristobal, the capital, and, in fact, runs into Balize. It is also found in almost the entire north-central portion of the republic from the coast of the Gulf of Mexico west as far as the 10th parallel of longitude, being cut in two by the sandy, clayey soil of Chihuahua. In this strip are to be found the cities of Tampico, Victoria, Monterey and Saltillo, and the great cotton belt of the Nazas. The absolutely clayey formation is found along the Mexican Gulf coast, including all the States of Tabasco and Vera Cruz, and the Isthmus of Tehuantepec; and there are small sections along the Pacific Coast and north of Colima.

For the cultivation of agricultural products of universal character (and no country in the world has a wider scope than Mexico,) the question of climate is of moment. The largest portion of the republic contains an average climatic range the year around of 15-20 degrees centigrade. This section commences at the frontier, at Paso del Norte, running west to the 12th parallel of longi-

Beans are raised especially in the northern portion of Mexico, Lower California and Yucatan. Although there are large bean-growing districts in Oaxaca, Queretaro and Aguascalientes, the point of greatest production last year was Jalisco.

The wheat section of Mexico is included in the heart of the continent from Paso del Norte as far south as Puebla, ranging from Saltillo westward to Durango and Guadalajara and eastward to Tulancingo. This wheat belt lies between parallels 2 east longitude and 12 west longitude, and includes the City of Mexico and places like Puebla, Morelia, Guanajuato, Guadalajara, San Luis Potosi, Zacatecas, Durango, Saltillo and Chihuahua. The biggest production of wheat was in the rich agricultural State of Jalisco.

Barley grows along a narrow strip westward of the wheat belt, running through the States of Sonora and Sinaloa, also in the vicinity of Aguascalientes, Queretaro and Pachuca, also around Oaxaca, Tixtla, Cristobal, and Chiapas, while it is raised also at the tip of the peninsula of Lower California, and at points along the coast. Puebla is the largest producer of barley.

Before the completion of the big irrigation scheme in the Nazas Valley, the cultivation of cotton was confined to a small strip along the coast of Sinaloa and Southern Oaxaca, but it now is an important industry in Mexico. Besides the cotton belt of Laguna, irrigated by the annual overflow of the Nazas, the Nile of Mexico, cotton is raised along the Sonora coast, as far north as Ures, and as far south along the Sinaloa coast as San Blas in a continuous strip averaging one-quarter of a degree. It is also cultivated around Colima, Acapulco and in various detached portions of the central plateau.

Hemp, called benequen, is the great industry of Yucatan. Maguey (agave salmiana) is cultivated by preference in the section east of the City of Mexico, along the plains of Apam. A fiber, called Pita (Bromelia silvestris) is cultivated in the vicinity of Oaxaca. A large amount of lechuguilla (Agave heterocantha) is cultivated in a section of the country from the American frontier as far south as Queretaro, averaging one-half a degree in width, between parallels 1 and 2 of longitude west, and also in the States of Chihuahua and Durango.

While coffee is such an important item of Mexican exports, the section of country in which it is cultivated is comparatively small, including a narrow strip in the State of Vera Cruz, south of Tampico to Minatitlan well inland, and there are strips of rich coffee lands around Cuernavaca, Urapam, Colima, Tepic, Oaxaca, Tabasco and Chiapas. The biggest output last year was from the State of Vera Cruz. Some of the best coffee comes from the State of Oaxaca, although it is outranked in point of reputation by the older, but not better, coffees of Uruapan and Colima.

Tobacco grows also in the States of Vera Cruz, Jalisco, Oaxaca and isolated sections of other southern States, but neither coffee nor tobacco is cultivated in Mexico north of latitude 22. The largest output of tobacco was from the State of Vera Cruz.

The lack of railroad facilities prior to the year 1883 had the effect of restricting the agricultural development of Mexico, which is now being taken up in earnest, due to the fact that the railway system of the republic, extending 26,000 kilometers, reaches into far away corners of the country that had, till that time, been locked in sleep.

Mexico can produce almost everything in the way of temperate zone grains and fruits, and all the fruits and grains common to tropical climates. The recent attempt to introduce the cultivation of East Indian fruits, and even of tea from the Himalayas and Ceylon have been, so far, successful, proving the wonderful capabilities of this country in that respect. Even portions of Mexico which had been considered wholly unavailable for agricultural exploitation, such as Tiburon Island, off the west coast of Lower California, are being taken up. The Mexican Consul at Los Angeles, Mr. Guillermo Andrade, recently obtained a concession from the Mexican government to exploit these islands. The largest has an area of about 237,000 acres of land, suitable for growing corn and wheat, and the grazing lands can accommodate 25,000 head of cattle. The marvelous prosperity of the Argentine Republic in the line of wheat cultivation was brought about by the infusion largely of American capital, and as American capital enters Mexico, it will do likewise. The Mexico of today presents a composite picture. Agriculture is still handicapped. In the first place, the largest portion of the national territory is still held in the hands of about 7000 families, a truly feudal aristocracy, based upon land tenure, with titles edited in the Nahuatl (a language 3000 years old,) and running back till the memory of man grows weary. Some of these enormous top-heavy estates are transfixed already by those avant couriers of progress, the parallels of railways, which, sooner or later, will kill conservatism. Meanwhile, there are mile-wide plantations, as yet in a single hand or held by one family, and until some of these immense tracts, mostly uncultivated, are cut up and put on the market, their output will be limited. The middle class must yet be evolved from the chrysalis of colonial isolation in which the great landed estates passed down from the Spanish conquistadores, whose lands are still in large part vested in their families. Without indulging in platitudes, it can safely be said that this situation forced itself many years ago upon the consciousness of President Diaz and his able Cabinet, and the same courage and genius which the President displayed in the railroad situation has played about the agricultural situation of Mexico, as far as circumstances will allow. Now that railroads are a fait accompli in Mexico, they will help to break the shell of conservatism, and allow the new winged possibilities in agriculture to become manifest.

As far back as the year 1890 the agricultural exports to the United States from Mexico were only 15.3 per cent., and during the four previous years Mexico exported an annual average of \$12,000,000. Coffee constituted the largest item then, and vegetable fibers were second in value.

While the production of tropical growth in Mexico has been proverbial for its richness, there seems little question but that the future success in agriculture will be rather along the lines of grains, fruits and products of the temperate zones, hitherto not undertaken, because the agricultural sections of the country were so far away from railroad transportation. With respect to tropical cultivation, it may be said that all vegetables, usually cultivated so carefully in northern countries in gardens and hothouses, will grow readily in this country in the open air. Apples, cherries, peaches and like fruit do not do well in the tierra caliente (or hot lands,) but this tropical section of Mexico easily produces mangoes, bananas, custard apples, breadfruit, Jackfruit, rose apples, guavas, pineapples, figs, Japanese plums, oranges, limes and all kinds of nuts. The tropical planters also do well with annatto, arrowroot, cocoa, cloves, cinnamon, cinchona, coconuts, cashew, ginger, jalap, nutmegs, pepper, rice, sugar cane, sarsaparilla, tania, tea, tobacco, turmeric and yams.

Life on the average hacienda is ideal on account of the charming climatic conditions and the sense of ease and prosperity that prevail. It might be called stagnation by



VOLCANO OF COLIMA IN ERUPTION, MARCH 24, 1903.

in a year and two crops of cotton. In the tropics the rich vegetable loam runs down a meter or so of virgin soil in many places as yet untouched by the blade of a plow.

The quality of soil, sandy, is found to skirt all the coast of the country with a special depth along the coast of Yucatan, and there is a narrow strip of clayey soil of Chihuahua, running parallel to the Rio Grande from the point opposite Paso del Norte towards the Gulf of Mexico. The sandy with clayey formation is found in the Peninsula of Lower California, also a small strip in the State of Puebla, running east from that city to the Gulf, and strips in Tepic of varying size, but the best of this soil is a strip averaging one degree in width, running south between 6 and 8 (Mexican longitude) including the city of Chihuahua, then veering south to Durango, and running almost to Guanajuato, including in its sections the cities of Zacatecas, Cuernavaca and San Luis Potosi. The clayey formation, which is a minor element, is to be found along the Pacific Coast, commencing at the frontier of the State of Sonora adjoining Lower California, and reaching to the Gulf of Mexico, and then southward to the city of Guaymas. This belt widens southward and works inward, leaving a portion of Jalisco within its scope, and then works back to the Gulf of Mexico, and in this section are located the City of Vera Cruz, and such places as Pachuca, Morelia, Guadalajara, and Culiacan.

Another strip of this same quality of soil in the State of Chiapas, Coahuila, Nuevo Leon, between par-

titude, and then dropping through the wall of the continent to a point in the vicinity of Orizaba. After reaching parallel 28 of latitude north, where its width is circumscribed between the 4th and 9th degrees of longitude, this section thins down to a point about one degree in width along the 25th parallel of latitude, and then widens eastward almost to Victoria, Tamaulipas, whence it includes the heart of the country southward, with varying width. Through this section are interspersed small districts of country in the neighborhood of Toluca and Puebla, Morelos, Zacatecas and Chihuahua, where the average is 10-15 degrees centigrade. Entirely surrounding this temperate zone is a section where the average temperature is 20-25 degree, and which includes the State of Nuevo Leon, and that of Tamaulipas and Vera Cruz (with the exception of the tropical coast.) It also ranges inland to take in the cities of Oaxaca and Tixtla, and runs northward from Colima through the States of Sonora and Sinaloa (with the exception of the tropical coast.) This zone is also found in the peninsula of Lower California, and in a portion of the State of Chiapas. The tropical portion of the country has an average temperature the year around of 25 to 30 degrees centigrade, embracing the sea coasts of Mexico and the entire peninsula of Yucatan, as well as the entire Isthmus of Tehuantepec. There are a few insignificant sections in Southern Mexico, south of Cuernavaca, where the temperature averages over 30 degrees centigrade.

Corn is king in Mexico. It grows almost anywhere in the country, and is indigenous to this continent. It is called maize, like the Indian corn, but it is especially productive in the central portion of the country. The production is greatest in the State of Jalisco, next in point of production being the State of Guanajuato.

the average Kansas farmer, who has to fight frost and other untimely conditions, but with the exception of certain portions of the central plain of Mexico, no frost ever kills up Mexico from nipa to Mexican rain. The average summer temperature in this capital is 65 Deg. Fahr. in the shade, and has been so for the past fifteen years, and, when it is considered that in winter it averages 45 Deg., an idea can be formed of the equable character of the temperature, even at this height of 7500 feet above sea level. There are portions of the republic, like

the benefit of the many, not the few. The development and cultivation of a land in tropical Southern Mexico under present conditions yields better returns than any class of Mexican securities, providing one starts right; but as soon as the cultivation of fruits and grains of the temperate zone is undertaken systematically, that venture would probably pay even better; for instance, coffee, producing one-fifth pound to the tree, wholesales in New York, the raw berry, netting 12 cents gold per pound, and retails in this city, ground and roasted, at 30

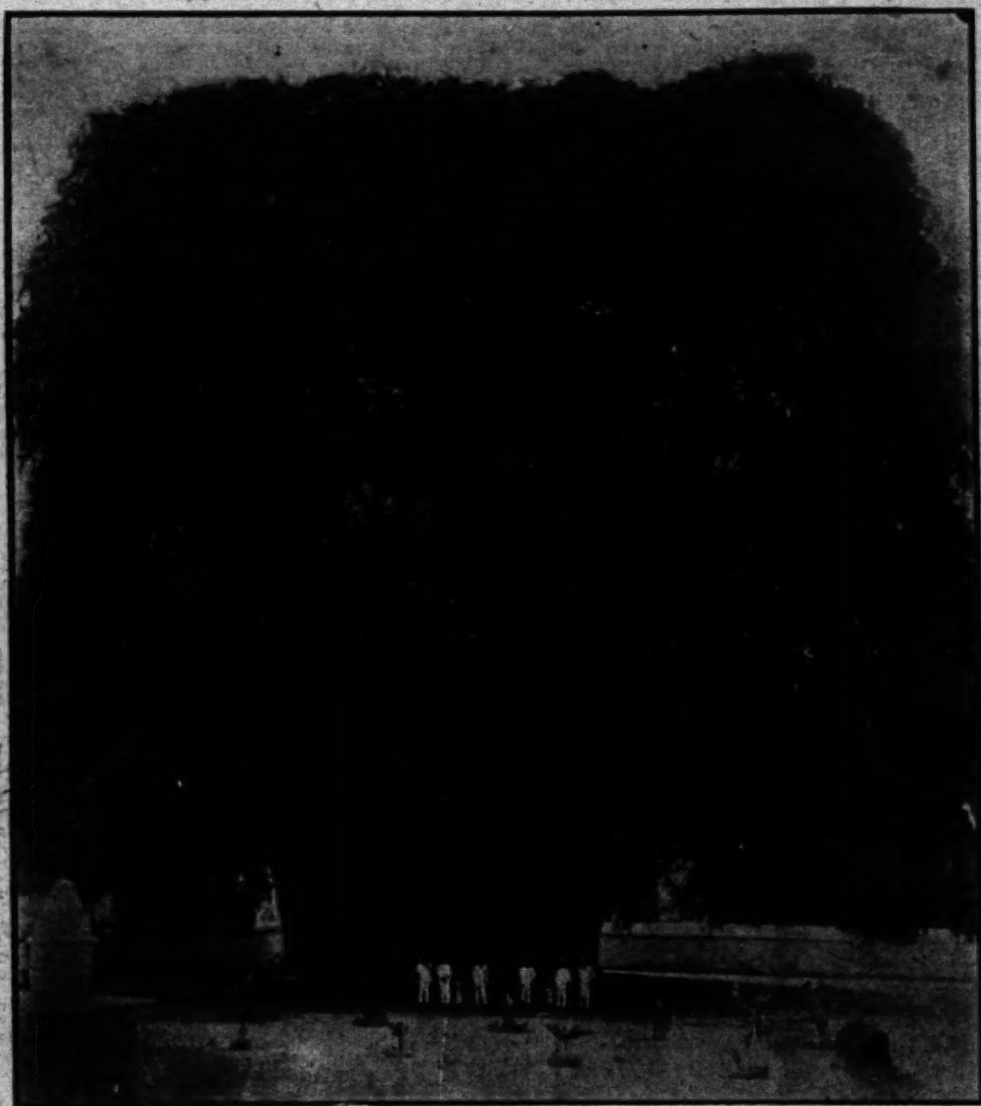
therefore, his idea of this big round world is as small as that of the Hindoo coolies, who though they think yet, that the earth is flat and rests on an elephant. The horizon of the peon is limited, shut in by the mountains, the river, the sea, the sky, and the fact that hem in his hut, or the river that flows by his hut for him day and night. About his neighbors he knows nothing and cares less. He has a native contentment which would be amusing were it not known to be so. Among this humble class the home ties are very strong and the attachment between old and young is phenomenal. In the mines he will claw his way up the rude ladders which consist of notches cut in the sides of hundreds of feet, with a couple of hundred weight swung upon what seems to be tireless shoulders, and the native haciendas he will work like a mule from sunrise to sunset, content with the stipend he receives far more content than many a millionaire with the money he has earned money. There is no cheaper laborer in the world and the only thing that can compare with him is the recent Japanese laborer. Sickness has little terrors for the Mexican peon is as true a fatalist as the Arab. His future he consigns to the church, and he remains on good terms, by sharing with the priest his daily pittance. Until within the last twenty years when education was made compulsory among the Mexican Indians, under the magnificent policy of Cortez they were ignorant, intolerant, priest-ridden and stupid. The lever of education has already lifted him up from his ancient drudgery, and he is beginning to turn on himself. When the benefits of education are made available upon this race, they will bring out the best.

Hitherto the peon has been imitative, though inventive; but when his native ingenuity is aroused, he will be found to be one of the best kind of laborer in the world. Whether due to the supposed Asiatic blood of the Mexican, or whether he is inherently so, he is as imitative as the Japanese, and as patient as he. As a rule, if a process is once explained to him, he sees it put in practice, he will copy it faithfully. Japanese workman who duplicated the products of the Philadelphia Exposition that had been previously cracked, reproducing the pottery in a year or so and all. Hence the value of careful training of Mexican laborer, showing him just how things must be done, but when once understood, they will be done forever. They are not rebellious, or given to meddling in politics, and are usually a pleasure to handle. Their natural stubbornness is the result of ignorance and suspicion, which can be handled, provided they are instead of being driven. Such is the labor of Mexico which cuts such an important figure in the cultural development. The latest statistical data on agricultural production in the republic of Mexico published by the Mexican government, are for the year 1912, which will be given entire in another part of this report. The report for 1912 will be given to the world in

AGRICULTURAL PIN-POINT

No report upon the republic of Mexico is complete without some detail as to its agricultural lands, and to economize space they are given in this alphabetical, even though in the shape of short points:

BANANAS. Humboldt in 1801 said, while in Peru: "One acre of ground planted in bananas will produce more food at less cost than any other known crop. It is the most productive of fruits. It produces four times as much nutrition as the potato, and times as much as wheat. Before the arrival of Spaniards the Mexicans and Peruvians in general



THE BIG TREE OF TULA, SAID TO BE THE LARGEST TREE IN THE WORLD.

Toluca and Pachuca, which are colder than Mexico City, but the great majority of land districts in the republic rest within easy temperature, and much of the country lies in endless summer.

The day of great, undivided estates is passing, as are passing all untoward conditions that have hitherto handicapped Mexico in its progress. The elasticity of this country is simply marvellous, when one reflects that, in spite of the stab given to silver in 1873, this country has not only never defaulted one penny of its foreign indebtedness, but has paid its interest abroad religiously, and, at the same time, carried on great works of improvement, and was able last year to realize a surplus of \$30,000,000 silver. Even with the limited agricultural production incident to Mexico in the past, it is a matter of fact that no Mexican house ever failed, although foreign concerns have gone into the hands of receivers, as did the International Bank. Mexicans are conservative, and while they are called slow, they are sure. As soon as the national consciousness awakens to the desirability of subdividing the landed estates, now held intact, and largely uncultivated, the owners will apportion them for cultivation. It should be remembered, though, that the present system is the result of old-time practice. At the time of the conquest, the Spanish government set aside certain defined sections of the territory for the use of the Indians, and distributed other portions of the territory, the largest and most important, among the conquistadores. The sections, or reservations, for the Indians were called "Congregaciones," and these exist in nearly all the fertile sub-tropical districts. Among these "Congregaciones," undeveloped land can be had for farming purposes in lots of ten acres and upward from \$1 to \$3 per acre, silver, provided the Indian owners can be conciliated; but the Indian in Mexico has been so crushed that he is suspicious, and has to be handled accordingly. It is interesting to note, in this connection, according to the report made by United States Consul-General Andrew D. Barlow, and which was published in the Los Angeles Times of December 23, 1902, that, scattered throughout the rich agricultural sections of Mexico, there were at that time 214 farms owned or operated by Americans, and representing an invested capital of \$28,125,394.53. The phenomenal success attending the average American agriculturist in Mexico, due to the fact that the American thinks while he plows and while he reaps, has been noticed by the Mexican hacendados, and they are copying everywhere American methods, and American farming machinery has entered this country increasingly during the past five or eight years. Hitherto, Mexican farmers have been content to cultivate the specialty of their farms, be it grain, fruit, cotton, sugar, rubber or vanilla, instead of attempting the cultivation of all classes of productions, and this was due to the fact that, in olden times, the country was overrun with bandits and revolutionists, and landed proprietors were content to raise barely enough of the necessities of life, and cultivate one specific article, in the hope of realizing in the risky market its full value. The railroads are cutting into this conservatism, and leveling the feudal conditions of the sixteenth and seventeenth centuries, when the haciendas were fortified and the possessions were patrolled, and as a result, profitable agriculture and peaceful pursuits are now becoming the order of the day for

cents a kilogram. Rubber, planted with 250 trees to the acre, and yielding from two to five pounds rubber to the tree, brings 63 cents a pound. Sugar, once planted, does not need replanting in ten years, and yields per acre 570 Mexican or 50 to 75 per cent. greater than the yield in the Southern States of the United States. Corn yields two and three crops a year, and brings even better prices than American corn in Mexico, for the reason, probably, that it contains a higher percentage of nutriment than the frost-starved corn of the United States, and this is also the case with sugar, which, due to the kindly climate of this peerless country, contains a higher saccharine percentage than can be obtained in Louisiana. As cattle, in Oaxaca one acre will fatten two head of steers, and cattle fatten and fatten the year around on the average Mexican hacienda. As the Mexicans begin to understand the value of their lands in the eyes of the Americans, they naturally begin to hold out for better figures, and, in consequence, prices on plantations have advanced during the past four years on an average of 50 per cent. per annum.

Estimating \$250,000,000 the agricultural products and cattle industries of Mexico, during the present year, and reckoning the population of the republic at 14,000,000, would give a per capita of \$35 silver per inhabitant, but as what is consumed at the point of production is not included in these figures, it can safely be estimated that the production per inhabitant in Mexico is 44¢ per year. This poor showing on the part of the Mexican laborer is explained in two ways: First, that, due to Mexico's mild climate, the living expenses are less than in other countries, and the Mexican peon is not compelled to produce as much in order to earn his living; second, that, as property holders, as has been stated before, due to limited management, produce on their estates, as a rule, but one class of grain, they employ laborers only at the time of sowing and harvesting, while the rest of the year the laborers either emigrate to other farms or are idle, living on what they can borrow from their employers, and oftentimes are in debt to their employers, who hold them under their control from year to year in a sort of semi-slavery. This can be remedied, as it commenced to be remedied during the past two or three years, by the general cultivation of various kinds of grain that are sold and harvested at various periods of the year. As the peon works only from hand to mouth, and oftentimes is in arrears to his employer, and bound to him for service, he has no ambition, and cotton-clad as his ancient ancestor, or in "magnificent rags," as Charles Dudley Warner puts it, he lives on from day to day a vegetable life, scarcely thinking, and moving along the old grooves like a machine.

The peon is a Mexican institution, as distinctly typical of Mexico as are the patient burro and the plastic adobe. There are several millions of him. No landscape is complete without the patch of vivid color made by his red serape and the flicker of his manta suit. His intellectual delights are simple. A game of cards or a drink of pulque, a lazy *siesta* or a wild *fiesta*, are the only breaks in his machine-like existence. He is attached to his particular locality, and does not like to wander far from it, and in fact seems to prefer the state of slavery incident to the debt system rather than better his condition by going where he may earn more money.



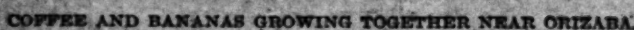
DATE PALM—WITH FRUIT

lived on the fruit of the banana tree. One banana tree can feed more than 150 men. The same area planted in wheat would produce for five persons. The plant grows almost everywhere. One acre of land on the Gulf Coast will produce 300 bunches of bananas per season, at an average of 8 cents (silver) per bunch, and the soil required is not half that required in the case of coffee, sugar or oranges. The sum of \$2000 will purchase lands, clear them, build ditches and cultivate a tract of seventy acres for the first year. During that time the plantation will yield 6000 bunches of bananas, worth at least 40 cents (silver) per bunch at the plantation, and thereafter not less than 100 bunches per annum, at a cost of \$1000 per acre. Nine months after the suckers are set out they are ready for cutting and in some portions of Mexico have had three crops a year. There are many uses of the banana. The fruit can be dried and made like figs, or reduced to sugary powder. By fermentation it yields brandy. The stem and leaves are used in the manufacture of paper. A plantain is a banana which is boiled, roasted or dried like a vegetable. It is no blight or other disease on the coast but affects the plants. Banana flour is a novelty.

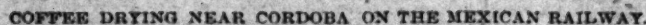
said, while in Mexico bananas will produce more than any other known crop. It produces forty times as much as the potato, and will be the forerunner of the arrival of the banana in great quantities.

FRANK. The frijole is typically a Mexican product.

COCOANUTS. The cocoanut palm (*Cocos nucifera*) has great possibilities. It grows very high and has leaves twelve feet long as a rule, which are used to roof



The premier pastoral section of the republic, known as the Huasteca, belt of land lying on the northern coast, to the north of the port of Veracruz, is seeing up in cattle possibilities. Alfalfa grows so luxuriantly there that cattlemen say that the land will support on each acre two or three cattle, perpetually ready for the slaughter. Americans are commencing to appreciate the cattle possibilities of Mexico. The North



COFFEE. Coffee is one of the few industries that can be "successfully pursued by the poor, the rich and the man of moderate means. It grows more or less in all tropical countries. Entire absence of extreme heat and cold, a moist atmosphere, a fertile vegetable soil and absence of drouth are indispensable to produce coffee. Such conditions are met with in exceptional degree at Cordova, Orizaba, Uruapam, in the State of Oaxaca, and in the Huasteca. The Cordova and Orizaba districts comprise the real coffee center of Mexico, supplying as they do two-thirds of the entire coffee production in the republic, while the best coffee is probably that from Uruapam, in the State of Michoacan, where the area

producing the berry, however, is very limited. The coffee production in the Huasteca region is commencing to command attention. In China the rule is 1000 trees to the acre, but in the Xilitla district, so luxuriant is the growth that the limit is 450 trees to the acre. In plantations of 400 to 600 trees to the acre the yield has been two and one-half pounds to the tree, although eight pounds to the tree have been demonstrated. The Oaxaca coffee makes a very delicious blend with the Santos from Brazil, while the ordinary and favorite blend is Cordova, Ursupam and Mocha, mixed in equal quantities. The supply of coffee on March 1st, 1903, was 12,517,336 bags, as against 11,179,443 in the preceding year; and of this stock the United States holds about one-sixth, having on March 1st, 1903, 2,224,304 bags. That season Mexico produced 500,000 bags. The price in New York in 1902 was about \$22 (silver) per hundredweight. Coffee ground and roasted retails in Mexico City at ninety cents per kilogram. The total export of Mexican coffee in 1902 was 23,203,319 kilograms, with a declared value of \$10,223,813. It costs in Mexico about \$7 (silver) per hundredweight to raise, pick, clean and sack coffee ready for shipment, and this year it has brought \$12 (gold) per hundredweight. The picking season is from November to May, inclusive, and during that time planters are careful to be on hand to prevent stealing or bad picking; therefore, as a matter of fact, it will be possible for an American farmer to run a fruit farm in the United States and a coffee farm in Mexico the same year.

CORN. Corn is king in this country. Its tasseled helmet of gold flaunts in every State of the republic, to more or less extent, but the principal product is from the State of Jalisco, which produced last year about 15,000,000 bushels. Corn is constantly developed that exceeds the quality grown in a famous valley of Iowa or the Kaw valley of Kansas, and in places two and three crops are raised in one year. Corn is the most necessary food staple for the Mexicans, for it is used in making their tortillas or daily bread. These are flat, unleavened cakes, like those of India, and eaten by all classes, and are made of ground maize. About 1,000,000 tortillas are eaten daily in this capital, and recently Americans have set up tortilla-making machines, which are sold by Baker & Co. At first women who make and sell this necessary staple objected to the machines, but they are beginning to comprehend that they can make more of them and therefore realize more. Mexico ranks third among the maize-growing countries of the world, its total crop being exceeded only by that of the United States and of Austria-Hungary. The climate and soil of Mexico, below the twenty-eighth degree of north latitude, are as favorable to the production as those of any country in the world. The yield is prodigious.

COTTON. Cotton is indigenous to the Mexican continent. It is even said that it grew in southern Mexico in

cheria hacienda near this city, and on fields of the National School of Agriculture, to test its development, and two months after sowing the seed the plant is thirty-six centimeters in height. The Hamer Flax Factory, which has been in operation for about ten years, is located near the San Lazaro depot of the Inter-oceanic Railway. It employs about 300 hands and is operated by Messrs. Thurston and Lloyd Hamer and their brother Geoffrey Hamer. Mr. Job Hamer, the head of the family, has been in that business all his life. The factory has 300 looms. The flax is worked into yarn and the yarn into linen, from the coarsest quality to the finest damask table linen. The flax is cultivated near Cuernavaca, on a plantation owned by the Hamers.

FRUITS. California fruit growers are interested in experiments on the line of the Mexican Central at La Barca. The first lot was shipped in October, 1902, to the American market, and during the season the export has been twenty cars a day. The fruit is packed and shipped by Lower California fruit men and in standard boxes. Limes and lemons from Mexico easily find favor in New Orleans and New York markets, the most critical fruit markets in the United States. Farmers in the State of Nueva Leon, Tamaulipas, Coahuila and Jalisco last December commenced to import California cuttings. American apples create quite a flutter in Mexico during Christmas holidays. They come from Oregon and California, wrapped in paper and packed in twenty-two kilogram boxes, at \$7.50 a box. On the other hand strawberries and red bananas sell cheaply in Mexico, while California strawberries realize in Chicago fifty to seventy-five cents per box, running twenty-seven to the box, and in Arizona and Texas the same quality of fruit brings half that money. Strawberries abound in Mexico the year around and bring from eighteen to twenty-five cents per pound. While red bananas from Honduras realize at Los Angeles forty to sixty cents gold per dozen, the red or blood variety costs here about one cent each. L. Forbes Graham, president and general manager of the Flickinger Fruit Company of San Jose, Cal., who was in Mexico last January, while he sampled some fruit that he wished he could transplant to California, among them the cherimoya or custard apple, which grows to perfection in Mexico and the East Indies. Ex-Congressman Luis P. Lopez, located at Viesca, Coahuila, raises grapes that rival those of California, immense muscadel of sea-green, red, black and black grapes almost as big as cherries. These grapes are from seed brought a century ago by the early missionaries.

HENEQUEN. The henequen fibre, which grows exclusively in Yucatan, is a great source of wealth to Mexico. The exports from the port of Progreso during last April amounted to \$2,250,000. The average price during the month was \$1.37 per arroba or twenty-five pounds. The greater part of the henequen was shipped to the United States. As far back as 1899 the henequen

Mexico, so much better than the African, was reclaimed. History was young when the prayer was for "Justice and Rain," made the prayer of Valencia to blossom as the rose. Mexico has 600,000 hectares of uncultivated lands, in only one-twentieth of the country is now cultivated, in much the same condition that Uganda was when taken over by the Americans. The land has demonstrated an irrigation section of 100,000 acres, once as arid as Chihuahua. These lands formerly were worth \$10 an acre, are now worth from \$20 to \$1000 per acre, and all the automatic irrigation work has been done in the devaluing rivers, canalizing weak streams, erecting reservoirs for rain water, and digging wells. What man has done, man can do as well as in the United States.

JUMPING BEANS. The jumping bean is a bean, with a grub in the center of each and almost triangular in shape. It grows upon a euphorbia. These Mexican beans will not begin to jump until the heat of the sun has begun to jump. A bean hung by a fiber will jump times as high upward, but will never jump down. Similarly, a bean mounted at the end of a string with a mirror like a galvanometer will cause a spot of light to move up and down, but never off of it. The movement is caused by the convulsive action of a grub, which is this good for its habitat.

LEATHER. Mexico exports nearly all its leather to the United States, receiving back the other leather goods. Well-equipped tanneries and there have been efforts in that direction, as yet experimental. Canals, which in a system of yields from its root a valuable tannin and grows wild in Mexico, as does also the cactus, the P. A. Schaefer Shoe Company of St. Louis turns out 100 pairs of shoes daily.

MAGNEY. The magney plant, not only a drink (and sometimes too much of it) but a preparation, food as well, and also fiber and clothing and domestic uses. It is to the Mexicans the palm tree is to the Arab. It grows almost at Tlaxcala, Queretaro, Apax, and other parts of Mexico, as well as at other points in the country. It is a very profitable production. Each tree and one-half acre) can be planted with 100 to 150 and each plant yields from 125 to 150 gallons. Allowing for waste, the profit on each hectare is \$15,000 during the lifetime of the plant, ten years, or about \$2500 per acre per annum. The generally received for the pulque, the magney, f. a. h. at the plantation, eight cents per gallon, and the retailer pays eighteen cents, including freight. About 2,500 gallons per day are

the larger picking of oranges sold at H... (silver) each, and American fruit men at Huachula or El Paso... The Mexican Central... a special orange... where the A... country with the A... freight rates. The... and productive... All the expenses of... which will b... and the American dollar... therefore, of 10... the first year of this... worth of oranges to t... loads were shipped fr... into this coun... and there are sev... enough the China ora... back as 1897 the prod... or Chinese orange... which producti... This report compares... oranges in California, w... necessitating 1000... oranges for every Amer... in large orange or... and other provinces. J... of the Monterey... each tree on his pl... oranges per annum, wh... production worth \$2000 g... in December, 1902, ... condition and a... in that market; a... than had ever been... oranges from any pa... 15,000 orange tre... planted, which will... be shaken off the... ground like so much h... carefully freighted... They have to be... Californian fruit m... this fact, and i... the fruit is car... handled and sort... of the same size, w... over a special r... station and to... who are engaged in... a widow of an Amer... fourteen years in that... oranges in 1902 from... the mountains of ea... in boxes of ced... each orange bel... superintendent. The fr... 100 to 200 in the box... fruit, for sixty days... who settled in the Hu... planted on some Florid... after eighteen months... four oranges each. T... six miles from the... Melchor Ocampo... oranges of exquisi... by Methodists, Amer... Scientists are successf... on the Gulf coast, a... engaged in New... The orchids of M... in the States of Oaxaca... recent revolutions in bea... and bud varieties... pure white. The Mexic... they grow on trees, b... nothing of a tree say... from the damp air of... the year around in the... Mexico. An interesti... published by James... Interior, who was born... commenced the publi... of Mexico and Gu... in 1884. This book, in all... series of colored pi... of orchid culture, but a... cultivation. In connection with... P. A. Saccardo... plants in the world... Mexico produces as man... country of its size, includ... and ferns; yet few... times as many unknown... are found in Mexico. As a... to Chicago there is a... minerals and animals stri... out of the ordinary... in Old Mexico, an... aboriginalum;" it i... grows in the west... in air. Another natu... sponges; they are al... or pulque plant is another... and drink to the ful... The best potatoes... of San Andres, Chachic... of St. Paul, Minn.,... to cultivate potatoes... patch in the worl... level. He tried the... planted from native st... as high as 200 bush... Mr. Schlattman h... lands planted in pota... The soil came from... at seven feet, yielding... Barley at the second cr... The soil round La Cima... and the rainfall exceeds... and, unusually enough, there... in the vicinity of Ajm...

HARBOR OF ACAPULCO.

colors, and was so cultivated by the Aztecs. In 1901, the State of Vera Cruz held the first place as a consumer of cotton, and its factories that year used 10,743,432 pounds, valued at \$4,654,936. Puebla came second, with a consumption of 7,944,325 pounds. The Federal District consumed 4,882,756 pounds, valued at \$2,212,311. The State of Mexico consumed 4,055,537 pounds, Guanajuato 2,222,416 pounds, Coahuila 1,555,940 pounds and Jalisco 1,320,243 pounds. One of the richest cotton districts in the country is what is known as the Laguna cotton belt in Durango and Coahuila, with 170,000 acres, and whose output in 1902 was worth \$15,000,000. The problem of negro labor in Mexico was unsuccessfully demonstrated by this company. In the year 1904 W. H. Ellis of New York succeeded in bringing 500 negroes from Richmond, instead of from Alabama, to the Tlaxcala lands. The Virginia negro did not understand cotton picking and the venture was a failure, while the experiment cost the company \$200,000. The judicious employment of trained negro labor in Mexico would pay. On the other hand, in November, 1902, several thousand Mexicans were brought into Louisiana from North Mexico to work on the cotton plantations, and they seem to have done well, even better than the Italian imported labor. Among the largest cotton mills on the continent is that operated by the Compania Industrial de Orizaba, of which Thomas Braniff is president, and in which nearly all the French dry goods dealers in Mexico are stockholders. Its capital is \$3,500,000. The Compania Industrial Veracruzana is another large concern, which has a mill at Necoxtla, Vera Cruz, and whose sales in 1902 were valued at \$2,965,473, or an increase of \$1,000,000 over 1901. M. J. Voigt of Wisconsin and the Armendariz Brothers of Monterey are conducting interesting experiments with Egyptian cotton and wheat in Nuevo Leon and Tamaulipas. In this belt the boll worm and weevil will not attack Egyptian cotton. The cottonseed oil industry in Mexico is in its infancy, as are practically all industries in Mexico. The average annual production is 1,500,000 kilograms, and the consumption last year was 14,000,000 kilograms. The average price is twenty-five cents per kilogram. About 60,000 bales of cotton were shipped from Gomez Palacio, on the line of the Mexican Central, last year. The acreage in cotton is steadily increasing.

FIBRES. The steel hemp is produced in Yucatan and small quantities are produced in Cuba and the Bahamas. Broom root is also a Mexican product, the root of a tall wiry grass. The little is also a useful fibre that grows profusely in Mexico.

FLAX. Flax is known in Mexico as linaza. There are various regions in the Republic where linaza is extensively cultivated only for its seed, throwing away the stalk, because it is considered impossible to extract the fibre, or at least the extraction is so costly as to make it unprofitable. The plant has been grown in the Le-

exported in April amounted to 35,000 bales, weight 6,234,740 kilos. Manufactured henequen was exported from Yucatan during the first six months of the current fiscal year valued at \$15,000,317, as against \$11,007,135 during the same period of last fiscal year, an increase of \$4,002,382. Yucatan owes its prosperity to this henequen industry, and this success has stimulated planters elsewhere in Mexico. Sonora planters obtained from the Department of Encouragement 2000 young henequen plants and set them out on the Santa Clara and La Paz haciendas. They were set out three meters distant from each other. That was in October, 1902, and in six months' time the plants were covered with shoots sixty-five centimeters in length, and they have produced well since. **HIDES.** The hides untanned exported during the first half of the current fiscal year, were valued at \$2,201,440, against \$2,724,124 during the last fiscal year, or an increase of \$474,124. Mexican hides are of sheep, goats, wild hogs, lizards, cattle, deer, birds, wolves and tigers. The total value of the export in 1902 was \$4,000,000, representing 17,000,000 pounds of hides.

HONEY. Honey is especially produced in the States of Jalisco, Michoacan and Guerrero. It costs about two cents silver per liter, and is shipped to England, where it brings seventeen cents gold.

IRRIGATION. While irrigation has become a fine art in the United States it is far removed from perfection, and at least \$6,000,000 acres it is calculated, could be added to the productiveness of the United States by increased irrigation facilities. The United States enjoys what Mexico lacks, large lakes and rivers, and yet important irrigation schemes have been carried through in Mexico. The improvement in that line in the Tlaxcala region reclaimed a mesquite desert of fifteen years ago, so that last year it produced \$15,000,000 worth of cotton. In 1901 the government contracted with the Sinaloa Sugar Company to utilize a large quantity of water for irrigation. Another big scheme, that of the Negociacion de Xico y Anexas, organized nearly ten years ago by Noriega Brothers (Spaniards) who drained Lake Chalco, a body of water covering 20,000 acres. Their system includes 200 kilometers of canals and thirty of dikes. The work occupied a year, with a force of 2000 men, at a cost of \$4,500,000, and the owners calculate that the land will now produce annually 60,000,000 pounds of corn, valued at \$1,500,000, as well as rice and barley. Another interesting irrigation enterprise is being brought to the stage of practical operation, involving the Casteja springs in the State of Morelos, which it is said, are fed from the heart of Popocatepetl, and the purpose is to irrigate the land available in the sugar belt of Morelos. While water bodies are scarce, eminent engineers think there are enough in Mexico to develop a respectable irrigation system. Certainly, if the Sahara Desert could be redeemed by artesian wells, the desert of Chihuahua, in northern

this city. A "schooner" of pulque is said to cost cents. Among the products of the market are quila, mescal and litchikulla (various fruits).

MINERAL PAINT. Mineral paint was discovered by the Corralitos property in northern Mexico. Judge J. F. Crosby is largely interested. The find was made by Prof. Chas. H. Crosby on his visit to that section.

CHICUACOPOLI OIL. The cultivation of the copoli or Mexican olive (olea americana) is a new industry in this republic, and the quality of the copoli. One might say it is more exquisitely than olive oil used to anoint the old kings of France. The Mexicans extract the oil either by pressing the fruit is cold, or by heating when the fruit is ripe. Sea salt is added to extract all the oil. The fruit is sometimes curiously preserved by women with mixtures of garlic, sea salt and other elements which they will not reveal, and as a result to get a secret out of a woman, the secret must be them. Olives cost \$1.50 per arroba to produce. The price of the oil is from \$5 to \$10 per arroba (25 pounds).

ORANGES. Two Mexican sections are particularly favorable to orange cultivation: the Huasteca (Tampico), and the district between Irapuato and Tlaxcala, near the line of the Mexican Central Railway. The orange tree thrives best in climates where the winter is needed during part of the year, and then it is not subject to diseases of a fungoid nature, and is free from insects. In Mexico large trees planted in the open and well taken care of, have almost all died. Trees have been known to produce as much as 10,000 oranges in the season. There is a district that is particularly productive; it is a strip of land of about three miles in length and one mile wide, on either side of the track of the Mexican Central, below Cuatla. The average yield is from 1000 oranges to the tree; the production is to the tenth or thirteenth year. The trees are sandwiched in between the Florida and California oranges. The Mexicans can put oranges on the market in the middle of October, while California oranges reach New York until January. Under the present laws a new lot for \$5 to \$15 (silver) per acre, quality of land and distance from the sea are considered. In certain portions of Jalisco 300 trees per acre, and 2 million price of \$150 per acre, but the yield per acre reaches 1000, but at the same time that are often realized 1000 oranges per acre. The yield is \$1500 per acre. The price is so convenient to the railway range from \$5 to \$10 on the tree; the Mexican practice is to

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production, Germany, at latest accounts, led the list with 455,000,000, France 333,000,000, and Scotland 201,000,000, United States 160,000,000. It is believed that Mexico can easily produce 1,000,000,000, which would give it new importance in the world.

Ramie came into prominence early in the century as a commercial article in China, and was introduced into fabrics as fine as silk. It grows in the tropics and was experimented with at Laredo and in the States of Yucatan and Vera Cruz. The largest ramie raising site being at Cordoba. This big hacienda was started by Don Juan Pacheco, who in 1891 was Minister of the Interior and encouraged. President Diaz visited the place on its opening, and experiments of J. J. Moore have been demonstrated to be more successful in the process decortication at Bakersfield, California, than in Mexico six cuttings per year, or

394 trees to the acre. The plants set out in 1901 have this year reached fifteen feet in height, and it is estimated that they will give at the age of ten years five pounds to the tree. The soil is a rich loam. It is also of interest to know that rubber cultivation has also been undertaken along the river bottoms of the Faro Coffee Plantation, in the State of Oaxaca, a plantation belonging to President Diaz and associates, and which faces the Cafetal Carlotia Company plantation. Rubber trees flourish best below an elevation of 500 feet above sea level. Low lands, moist but not swampy, are the best. Time was when rubber lands could be got in Mexico at twenty-five cents per acre, but \$5 seems now to be the minimum cost. There are several varieties of the tree which give commercial rubber, but that mostly affected in Mexico is the "castillo elastico." The rubber trees propagate themselves from the seeds or nuts which drop from them in the months of May and June. They are raised in beds or nurseries and then transplanted. By the sixth or seventh year the grove should be in bearing, and by that

Furniture moving is never done by vans or wagons in Mexican cities. Usually the furniture of a house is taken on a small flat car drawn by mules, using the street-car tracks, but more often it is carried, a few pieces at a time, by cargadores in the street.

Public

net revenue was first half of 1900, greater by \$10,000,000.

WAY.

ive privilege was to establish a line across stormy Santa Ana republic, a new stage for nearly all of work, and the railroad was miles. The prelude government negotiator, leading to the consideration of the movements, of which the Salina Cruz. This line will revolutionize the New York, and the Panama Canal, the isthmus is the Guaymas to Salina Cruz, where the line is only 700 feet above sea level, a break of thirty miles an easy passage for

LEY OF MEXICO.

concession granted in the Valley of Mexico, being Count Cortes, Calderon de la Barca, for a line from the city was a very brilliant business man, and his was granted August 11, for the construction of a line to Tacubaya, which was completed in 1865.

N MEXICO CITY.

the first concession for the system was granted to T. Arnoux, and was for only in 1871 the line was formed, and in direction.

RAILROAD.

Mexico practically are forty-two concessions in the smaller concessions Central and the National investments of capital in line of railroads, and in country has called for circumstances full of difficulties, one-third of the country, or about 400 miles, the prince in point of traffic on the Mexican Central running between the two, the dorsal ridge of the mountain bringing to Mexico the life. From the local life, and management have been stopped at nothing in construction throughout the country, and of the system, and of the railroads, and is rock-hewn, and is the largest system in the world. The company was organized in 1858, and the stock fixed at \$22,000,000, and was to be completed by December 31, 1882. It was built in the Pacific in eight years after its opening to Leon.

1884, at Broad Plain, about 1214 miles of line, making 1214 miles of line. A locomotive from El Paso, each of which touched cow-catchers. The road had the peon and burro on the century-old dream, only a half-throated locomotive

Mexican Central Railroad gave emphasis to the inter-commercial road, and yet when the road was almost alone in its field, Emilio Velasco and L. de la Cruz, two of the great Mexican. Prior to 1884, the road had 429 miles of line, and the maximum curve about 10 degrees.

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than any line or combination of lines between Mexico City and the United States.

This great road is sentinelled for nearly eight hundred miles by mountains piled in majestic folds upon both sides of the line. The crowning period of Grecian history was that when the national life was expressed in the genius of generals, statesmen, poets and philosophers. In those marvelous times mountains were lifted up in the Homeric period of the world's formation, and as the wealth of Greece, transmitted into the spirits of her great men, is fixed in everlasting formation, so the earth's fires that lifted themselves into magnificent mountains, unspeaking giants, are stereotyped forever. The everlasting hills suggest strength as well as rest, and many a traveler on the National has caught from their silent shapes the secret of strength and rest. Its numberless peaks relieve a ride that might otherwise be tedious, going through miles of cactus-covered stretches. The million forms of the Sierra Madre seem to approach the passing train. They make a picture that pleases. They are massive companions to the thoughtful traveler. They are blue and gray, with shifting effects of sunrise and sunset and the full-orbed day; they seem to welcome or defy, as the mood of the traveler may be. They seem to be symbols of Nature's uncomprehended messages.

The National passes through Queretaro, San Miguel Allende, San Luis Potosi, Catorce, Saltillo and Monterey on its way to Laredo. It has a branch from Acambaro to Uruapan, passing through Morelia and Patzcuaro; another now with the cut-off, from Mexico City to Gonzalez, passing through Toluca; it is building to Matamoras, and has a branch from Maravatio to Zitacuaro, toward the Pacific, and several other small branches. Its subdivision from Laredo to Corpus Christi, Tex., is 100 miles in length.

Work was commenced in 1880, but progress was not as rapid as on the Central. It was built in pursuance of a decree of Congress, executed in September, 1880, and known as the "Palmer-Sullivan Concession," for the construction of roads and telegraphs from Mexico to the Pacific and to the American frontier; also from Monterey to Matamoras, and from Zacatecas to San Luis Potosi, and also to Lagoa. The total subsidies under the various concessions amounted to \$20,000,000. The original concessions were so hampered by many difficulties and delays that in 1883 the Mexican government combined the conflicting concessions into one

runs, trains cannot make more than fifteen miles per hour.

Beginning at the Rio Grande at Laredo, the National Railroad ascends nearly nine feet to the mile to Monterey, which is 1850 feet above sea level; then it climbs in ninety-two miles to the summit of the great Mexican plateau, 7000 feet high at Carneros, making an ascent of seventy-six feet to the mile; then it runs along the great plateau to the City of Mexico, at an average altitude of one and one-half miles, with hills and mountains piled boldly on either side, a region of tropical high lands. The snow line in Mexico begins at an altitude of about 15,000 feet. Five-sixths of the National Railroad lies upon a plateau or tableland; therefore, between the sea and the region of perpetual snow, and even at the highest point on its lines, Salazar, snow is unknown, but the frost of the mock winter of Mexico is sensibly felt at that height.

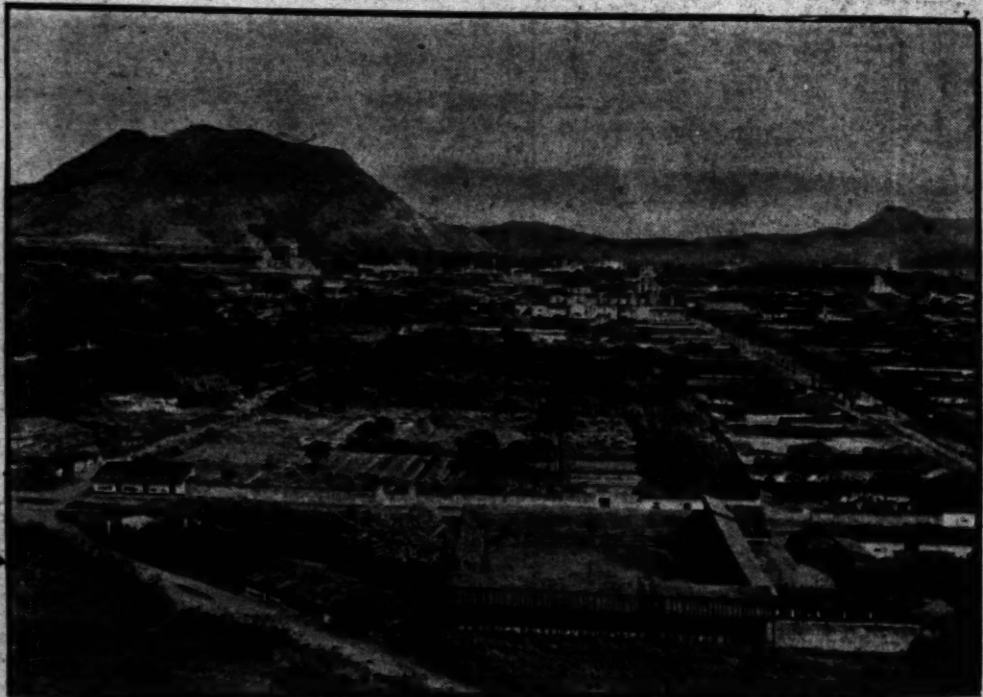
One of the principal cities on the main line of the National is Monterey, which is strongly Americanized, and with an American population larger than has the capital. Its total population is 62,286. It is a place brimful of commercial activity.

Moving southward, the line touches at Saltillo, with a population of 22,996. It is a legendary spot, and full of the quaint and unique. This place stands on the mountain's brow, nearly 7000 feet above sea level, and close by can be seen the battle field of Buena Vista, and Zachary Taylor's old fort.

Catorce, which means "fourteen," was so named from the fact that fourteen bandits made that their rendezvous, at the head of the cañon, which place they and their successors held against the vice-regal armies for more than two centuries. The city may be seen from the station, ten miles distant, at the head of the cañon, which suggests the Grand Cañon of the Colorado. This city is built on projecting crags, and no wheels were ever seen there. The only bit of flat surface is the plaza, fifty yards square. Humboldt says that the famous Catorce mines, discovered by the bandits, aggregated an output per annum of \$4,000,000 from the year of their discovery in 1773. The output now is about \$90,000 per week.

San Luis Potosi is one of the great business centers of the republic, on the line of the National, and with a population of 60,000.

San Miguel Allende, named after one of the fathers of Mexican independence, is a city of 12,440, a strikingly unique place.



GENERAL VIEW OF ORIZABA.

instead of eight, and the subsidy was increased to \$7000 per kilometer, or \$112,250 per mile. The manager of this road, Gen. Palmer, was the first to study the problem of railroad communication with the United States. The difficulties seemed as insurmountable as the mountain shapes that stubbornly opposed the advance of the locomotive. The road for many months penetrated the mountain division between Mexico and Toluca, and the entire construction called for infinite patience. January 1, 1882, saw the completion of 550 miles. Monterey was reached in that year, and the road was open to traffic from Laredo to Corpus Christi, 400 miles distant from Saltillo, which was entered January 1, 1883, to Acambaro, 172 miles distant, and up to 1884, 870 miles had been finished. It was finally completed in 1885.

Up to that time the sum of \$60,000,000 had been expended in this republic by Americans, of which 75 per cent. had been invested in railroads and mines, the greater part of which was used in the completion of the Central and National railroads. It is conservatively estimated that American investments now reach \$700,000,000.

By the change in gauge, the picturesque mountain section via Toluca to Gonzalez Station has been cut off the main line, but will always be a favorite side trip for tourists. This division remains narrow-gauge, as also the Morelia division. The ride between Mexico City and Toluca is truly beautiful. Soon after leaving the Colonia Station in the capital, one passes through the approach of the old Spanish aqueducts, and beyond the grim Castle of Chapultepec, through fields of corn and immense pulque plantations. Between Naucalpan and Rio Hondo the milder scenic effects are forgotten in the startling mountain scenery. The road winds steadily upward through echoing cañons, and across the airy bridges of steel and stone. The little valleys are alive with flowers, that clamber almost humanly through the ravines, played upon by the fingers of the sun and yielding sweet responses of fragrance and form. Small, clear and cultivated patches on the hillside and in the nesting valleys can be picked out by the traveler, some distant, some near by, and all marvelously foreshortened in the thin, transparent atmosphere. Beyond San Bartolo, the lovely valley of the San Francisco commences, surrounding the unchanging mountain of Tombeate, where live the strange Otomias, a race of Indians who still believe that Moctezuma II is buried there in the heart of that mountain, and that some day he will reappear and resume his reign. The highest point on this branch is Salazar, nearly 10,000 feet above sea level. This branch is forty-six miles in length, and owing to the mountain

Queretaro, which has only recently been invaded by the National, since its change of gauge, is one of the oldest cities of Mexico, with a population of 33,616. It is historic, being the site of the execution of Maximilian.

At Gonzalez Junction "the Laredo route" of the National branches off the old roadbed, striking straight across the mountains for the capital. This short cut has involved the expenditure of \$2,000,000, and now that the great Merceder tunnel has been cut and the Tula River bridged, travelers may reach Mexico by the "Bee Line," in stately Pullmans and over a standard-gauge track, absolutely perfect in its appointments.

The outside trips to Morelia, Patzcuaro and Uruapan, from Acambaro, are like rambles in perpetual garden spots. It is questionable whether Mexico has any section more graceful in garden effects and scenic attractions than this beautiful district, jeweled with lakes and glorious with flowers and birds. In plumage and song the birds of Mexico are celebrated. There are at least fifty varieties alone of the humming-bird, forming a chromatic scale of brilliant tints ranging from sea-green, bluish-green to emerald, and from the lightest straw to the deepest yellow. These song birds, that know no caging, keep that section full of life. There are beautiful rivers, streams and immense plantations that never know the unkindly touch of frost. This is a region richly endowed and but little known. But as the tourist element commences to comprehend the exquisite climate and the charm of custom and costume, as well as the amazing prodigality of nature in her merriest moods, as found at Morelia and throughout that section, their feet will be led thither.

The National skirts the lovely valley of the Lerma, tapping the mining regions of Tlalpujahua and El Oro, now so famous for their gold finds.

Perhaps there is no more charming spot in the country than Lake Patzcuaro, adjoining the famous coffee regions of Uruapan.

The National is now engaged in extending its branch from Monterey to Matamoras, which will give another outlet on the Gulf of Mexico. It also has several other small branches here and there.

While here in 1803 Humboldt wrote: "If we consider the progress of the new continent (Mexico), we cannot doubt that communication by land, little by little, will be made between the United States and New Spain, and some day there will be public stage coaches plying between Philadelphia and Washington, and Mexico and Acapulco." The reality far outshoots the vision of a hundred years ago, when one can view the fast-flying "Mexico-St. Louis Limit" trains of "the Laredo

route," covering the entire span of the ancient "Camino Real," or royal road, which is traveled now in a day and a quarter.

The equipment of the new passenger cars of the National is the latest in the republic. The first-class cars are elegantly finished inside, with mahogany and the finest upholstery. The seats are what is known as "the walk-over," a type generally adopted by all the leading roads in the United States. The second-class coaches are finished in oak throughout, the seats are reversible and the backs are as comfortable as those of the first-class cars, barring the upholstery. The third-class coaches are finished in ash, seats extending lengthwise, with a seating capacity of 150 passengers. The coaches have all the same class trucks, which are fitted with thirty-six-inch steel-tired crook wheels; also with retaining rings, which act as a factor of safety, for if the tire should get loose, which sometimes happens, it could not get off, as it is held by the rings. This insures great safety and protects the train from accidents, which are in a measure attributed to this cause. The wheels of the tender, as well as of the engine, have this factor of safety also.

The consolidated freight engines alone weigh 193,000 pounds, the largest in Mexico, with tenders having a capacity of 3000 gallons of water and fourteen tons of coal. The passenger engines are of the most modern ten-wheel American type, and will take ten or twelve of the largest coaches over the line at fifty miles per hour. They are fitted with large tenders, having a capacity of 7000 gallons of water and twelve tons of coal. Owing to the size of the tenders, few stops will have to be made for water or coal, this in itself saving a great deal of time. These facts give an idea of the capacity of the freight engines. Formerly the narrow-gauge engine's maximum load was 315 tons; the new locomotives on the standard gauge will pull 1300 tons. On a 2 per cent. grade the engines will haul a load of 600 tons, against 200 tons that the narrow-gauge engines drew. The freight cars are the largest in service in the republic, and of the most approved dimensions for handling the freight traffic, with a capacity of forty metric tons. They are fitted throughout with steel body and truck bolsters, which are practically indestructible. The most recent design of oil boxes is used, dust proof, and they are a great factor in the prevention of hot boxes.

This splendidly-equipped railroad is now practically the property of the Mexican government, as are the Inter-oceanic and the Tehuantepec roads. In this partnership combination the Mexican government put the Inter-oceanic, so to speak, under the wing of the National, and guarantees to the National for twenty years a practical monopoly of the railroad situation along the United States border, from the mouth of the Rio Grande to a point opposite San Antonio on the Southern Pacific.

The railway law of Mexico is considered one of the best extant. Under its provisions no railroad can succeed in squeezing the public. Not that this has been done, for, as a rule, railroad construction in this country has not only been a losing proposition, but has been carried on despite the heavy losses. Looking forward to any possible monopoly, the government has acquired the control of three roads, the National, Inter-oceanic and Tehuantepec, which gives it direct jurisdiction over a great trunk line to the United States, as well as railroad approaches to Tampico and Vera Cruz and the crossing at Tehuantepec. Under the railway law all tariffs and schedules have to be approved by the Mexican government before taking effect, which gives this paternal government a chance to interfere should the interests of the public be invaded. In this general system of railway intervention the Mexican National has suffered no change in the management or administration.

THE INTEROCEANIC RAILROAD.

ONLY twelve years ago the single railway link between Mexico City and the seaboard was the Mexican Railway, running to Vera Cruz, but on April 1, 1891, the Inter-oceanic, a narrow-gauge railway, was opened between Vera Cruz and the Mexican capital. The original intention of the road was to build under concession, of which it had the option, from Amecameca, on its western extremity, to the port of Acapulco, so as to form an inter-oceanic connection. This option expired in 1891.

The Inter-oceanic and the Mexican, rival roads, parallel each other across sixty miles from this city, reaching the coast by widely different routes, the old line pushing southeasterly and then northeasterly, while the Inter-oceanic swings to the south as far as Puebla, and makes a great bend to the northeast, crossing the Mexican Railway at San Marcos to Vera Cruz. On the broad-gauge road it is 200 miles or 320 kilometers. In the following divisions the distance from Mexico to Puebla is 200 kilometers; Puebla to Japala, 297, and Japala to Vera Cruz, 133 kilometers; while on the Mexican division 200 kilometers are in operation. The company which originally constructed the Vera Cruz road had reason to resent the construction of a competing line under a government concession, because in the charter of the Mexican Railway Company the government agreed not to give a subsidy to any other railway between Vera Cruz and Mexico for sixty-five years from November, 1883. But the opposing line was built, and under government subsidy of about \$14,000 to the mile, and the two roads have got along good-naturedly. If the Inter-oceanic would build a cut-off, of say thirty miles, between Ayotla and San Marcos, it would save the long detour to the north after leaving the capital, and shorten the distance to Puebla and Vera Cruz something like sixty miles. A very interesting round trip from Mexico to Vera Cruz and back is afforded by taking the Mexican Railroad to the port and returning by the Inter-oceanic route. The return is made via the beautiful town of Jalapa, a singularly picturesque hill-town, with streets so steep that no carriages are found there, and the only wheeled conveyance is the six-mule tram car. The elevation is 4400 feet above the sea, and the scenery is sublime. Within 120 miles from Vera Cruz the Inter-oceanic attains an elevation of 7000 feet, and for the remaining 220 miles it runs along a lofty tableland, with an average elevation of not far from 9000 feet.

The engineering work on this long line of heavy grades and continuous curves is interesting. Grades of 3 to 4 per cent. are common, but the engines with their eight-wheel drivers surmount that with fair speed.

The cars used were built by the St. Charles Company. A large part of the line is laid with steel sleepers, well-lashed with rock, and fifty-pound steel rails have replaced the forty-pound iron rails. Quite recently the competing Mexican Railway and the Inter-oceanic put on modern Pullman car service, where heretofore, on account of the supposedly dangerous character of the roads, they had only run day trains.

The principal shops of the company are at Puebla. The shop machinery is all of English make; almost all the locomotives, however, are of American make.

The capitalization of the Inter-oceanic was \$4,533,000, or \$24,000,000, represented by \$2,133,000 of debentures, drawing 4, 5 and 7 per cent.; preferred shares, \$1,000,000 per cent. cumulative; and ordinary shares, \$1,700,000.

THE INTERNATIONAL RAILROAD.

AMONG the fifty-nine iron roads in Mexico, the Mexican International Railroad enjoys the distinction of being the only road built without a subsidy from the Mexican government. It was built by C. F. Huntington.

It runs from Ciudad Porfirio Diaz (Piedras Negras) to Mexican points, such as Monterrey, Torreon, Durango, Sabinas, Monclova. At Torreon it crosses the Mexican Cen-

tral and at Monterrey it connects with the Mexican National. It is a standard gauge line, with the finest Pullman equipment, and operates 350 miles. The territory it traverses is rich in raw material, but undeveloped. In face of the fact that in 1903 this road moved 1,000,000 tons of freight distributed as follows: Agricultural products, 10 per cent.; animal, 3 per cent.; mineral, 74 per cent.; forests, 7 per cent.; manufactures, 7 per cent.

The area of the States of Coahuila, Nueva Leon and Durango, which the road passes, is 117,055 square miles with population of 995,130. This country is very rich in minerals, and is a superb farming district, producing cotton, corn, wheat, barley, and all the fruits of a temperate climate. Cattle and horses are raised in great numbers on the ranges. The cotton crop of these three States last year approximated 2,500,000.

Ciudad Porfirio Diaz, the "gate city," contains the principal shops and supply stores of the company. The Puente coal beds begin almost within the city limits, and the coal crops out in the Sabinas district, situated on the river by that name, the principal station of the bituminous coal region, which extends east forty by sixty miles in and adjacent to the Sabinas Valley. The product of the coal field described is marketed now at the rate of 600,000 tons of coal and 120,000 tons of coke per annum. The prospected portion of this territory indicates that there are 500,000,000 tons that can be mined profitably.

Torreon, junction of the Central and the International, is a point that has sprung into magic life since the large influx of Americans. The rough element is very much in evidence as in frontier towns of the United States, but the place has a healthy, substantial lease of life, and as conditions must improve, Torreon will improve along with the rest of the Mexican towns. A handsome \$50,000 hotel is being built at Torreon by George F. King, and another modern hotel, costing \$45,000, has been erected at Monclova. The latter was formerly the capital of the State of Coahuila and the State of Texas when they formed one State, and it is now division headquarters for the International.

From Hornos a branch line extends to San Pedro, nearly fourteen miles. This latter place is in the heart of the Laguna district, famous for its production of cotton. This plant produces there from five to ten years



A TEHUANTEPEC BELLE.

without renewal. In 1902 one ranch alone shipped 3000 bales. The Tiahualillo enterprise is perhaps the largest cotton plantation in Mexico. It controls its own oil mills, soap factory and other necessary plants for the manufacture of cotton and its by-products. Somewhat recently it was taken over by an American company, of which James Brown Potter of New York is manager. It covers an area of 250,000 acres.

The rolling stock of this road is of the finest type, and the locomotives are the largest and most powerful of their kind.

This road's concession gives it the right to build to the Pacific, from Durango west, a distance of 183 miles, and on which work is now proceeding. It will cost \$17,000,000.

There are other important roads in Mexico, such as the Mexican Southern, the Vera Cruz and Pacific, the Michoacan Railroad, the Southern Railway, the Peninsula Railroad, the Mexican-Pacific Railroad, and the Hidalgo and Northeastern Railroad, all forming part of the great railroad system, some 20,000 kilometers, with which the country is now threaded.

THE MEXICAN SOUTHERN RAILWAY

WHICH connects the city of Puebla with Oaxaca, the birthplace of Gen. Diaz, is 227 miles in length, or 367 kilometers, and is a living link between the heart of the republic and its southern extremities—a connection which will be even more emphasized when the road is pushed southward from Oaxaca to the Isthmus of Tehuantepec. Along the route often proposed for this southern connection with the Isthmus are the coal fields of Oaxaca, said to have been discovered by Gen. Diaz himself.

The question of fuel is of vital importance to Mexico, in connection with the running of railroads and the industrial enterprises, which, sooner or later, must dot the republic. The search for cheap fuel has induced Californians like Ed. Doheny to invest enormous sums of money in the oil prospects at Ebano, near Tampico.

Sir Westman Pearson has also undertaken to look for oil on the Isthmus of Tehuantepec. This search for oil has brought about an extraordinary demand for the latest well-drilling machinery and appliances. Machinery is wanted that will sink wells 2000 feet or more, if necessary.

Petroleum and asphaltum abound in Mexico, especially on the Gulf Coast, but as yet none has been demonstrated in the western portion of Mexico where the Mexican Southern runs.

A trip over the Mexican Southern is a glimpse into wonderful. The start is made from Puebla at early dawn; in the skies of the morning the stars melt away, showing the mountains gradually leaving more and more pronounced from the velvet of night. Near by is the princely peak of Orizaba, and upon the opposite side of the valley, the twin volcanoes of Popocatepetl and

Ixtaccihuatl, more or less outlined as the train emphasizes. The white giants seem to be looking on the picture and approach the beholder. The evening effect of the sunrise that still and brings up another picture, almost forgotten, tender love story of Maximilian and Carlota, the gentle, yet at times insanely cruel, the withering splendor of Forey and the wailing of Basinas. The crumbling walls of the battered bastions, foreshortened against the formation, catch the first pencilings of the light grows against the purple of Maximilian, the lofty towers of the Cathedral, its gloomy penitential battlements, so like to the falls with tender finger on the twilight of Guadalupe. The coming colors are quiet as gray melting into pink, and finally flush to the of the volcanoes. Painters like Velasco, and Moyes have tried to catch that moment of Puebla, but it is coquettish. Pearl gray comes below the timber land of the great valley, the fast blushing peak of darker Ixtaccihuatl, their left, the fated hill of Guadalupe tells the story of Maximilian. Dead are the churches and convents of Puebla Valley, the railroads and factories, whose morning light defiantly over crumbling arch and tottering few lingering lights, like fireflies, in the gradually melt away, and the notes of the awoken. Ghost-like smoke rises from factory motive, acquiring volume as the day brightens, is broad daylight over Puebla, as the Mexican Express moves towards Oaxaca.

The Mexican Southern is a perfectly comfortable track; most of the road runs on a first used in Mexico. The stone ballast is done that little of the rail is exposed, almost no just. Not a single accident is occurred on the Mexican Southern, a record shared by the Vera Cruz Railway.

The contractors, Messrs. Reed & Campbell, of \$7000 per kilometer. Another point on the road, and while only twenty miles Puebla, is 7393 feet above the level of the sea, can, 120 miles from Puebla, is at the watershed from which rivers flow to the Gulf and Pacific. It has some celebrated hot springs, with hills of irregular shape, huge naked hills of Caterce. Sandstone, marble and quartzite in the ranges reaching backward from the Tehuacan. The view is captivating. Against a purplish by distance and the more intense brown, there is a touch of the oriental in the walls and questioning towers of Tehuacan, the plantains and date palms. The rocks are stained in various colors by the coating of the face of the cliffs. These curious-shaped late columns and battlements, rich in Pecos, peering like some old fortress.

Below Tehuacan, on the Mexican Southern, number of fine haciendas, operated by which has a mysterious origin, for it is said to be hidden in the distant mountains.

The cofa, or characteristic head-dress of women, appears at this point, a head-dress of bleached cotton or manta, square in shape, flat on the head and falling in loose folds over the back. These caps are rather Egyptian, and even sounds like that of the headgear worn by natives along the Lower Nile. Sugar-cane grows there to mantle the mountain sides with its green, and there are immense groves of banana, hacienda, eighty leagues square, is the property of Miedo Martinez, Governor of the State of Puebla, left of the line, and off beyond the intervening coffee plantations of President Diaz and also the Carista, owned by Messrs. George D. Cook & Co., cago.

METEOROLOGICAL.

ALTITUDE AND ANNUAL RAINFALL OF CITIES.

CITY.	ALTITUDE.	ANNUAL RAINFALL.
Acapulco	1000	100
Aguascalientes	1500	100
Buenavista, D. F.	1500	100
Campeche	1000	100
Ciudad Lerdo, Dur.	1500	100
Ciudad Porfirio Diaz, Coah.	1500	100
Ciudad Victoria, Tama.	1500	100
Colima	1500	100
Cordoba, Ver.	1500	100
Cuernavaca, Mor.	1500	100
Culiacan, Sin.	1500	100
Frontera, Tab.	1500	100
Guadalupe, Jal.	1500	100
Guadalupe, S. L. P.	1500	100
Guaymas, Son.	1500	100
Huajuquila, Hid.	1500	100
Iguala, Gro.	1500	100
Jalapa, Ver.	1500	100
Lagos, Jal.	1500	100
Leon, Gto.	1500	100
Lincoln, N. L.	1500	100
Marshall, Col.	1500	100
Matamoros, Tam.	1500	100
Masa-an, Son.	1500	100
Merida, Yuc.	1500	100
Mexico, D. F.	1500	100
Mirador, Ver.	1500	100
Moravia, Mich.	1500	100
Monterrey, N. L.	1500	100
Nogales, Son.	1500	100
Oaxaca	1500	100
Orizaba, Ver.	1500	100
Real del Monte, Hid.	1500	100
San Luis, Potosi	1500	100
Salina Cruz, Oax.	1500	100
San Juan del Rio, Quer.	1500	100
San Luis Potosi	1500	100
San Luis, Potosi	1500	100
Tampico, Tama.	1500	100
Tehuacan, Gro.	1500	100
Tepe	1500	100
Tehuacan, Pue.	1500	100
Tehuacan, Ver.	1500	100
Toluca, Mex.	1500	100
Tuxpan, Ver.	1500	100
Vera Cruz	1500	100
Zacatecas	1500	100
Zapotlan, Jal.	1500	100

There are 42,000 square miles in the state of Coahuila, by Gov. Don Luis Terrazas in the State of Coahuila, is said that he brands from 20,000 to 25,000 a head.

It is the habit among the Mexicans of the lower classes to put a piece of paper about the size of a twenty-five-cent piece on each temple with a headache.

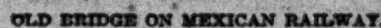
In addition to the usual register of names of Mexico, there are always blackboards on the walls, with their room numbers on them.

The famous Benito Juarez was a full-blooded Indian.

100

When imported into Mexico are assessed on the weight of the merchandise instead of ad valorem, the factor will in no way affect the amount of the invoice in all cases should contain the actual weight of the merchandise at the time they are subjected to a fine assessment.

When goods imported into Mexico are usually assessed on the weight of the freight, the following explains the difference between "gross," "net" and "weight" will be of assistance to shippers to this country is the combined weight of the goods and exterior packing.



Do not go into the churches here during services, and talk loud, and take photos, or walk into private pation to take snapshots, or take pieces of altar cloths or anything else. The Mexicans are pleased to have the tourists visit their churches at any time, but they have a right to feel offended if their churches are desecrated. The service is a noisy affair, and a noisy group of tourists. Bear in mind that "comparisons are odorous," and do not compare things here with those in the

United States. Take things as you find them, and do not grumble or complain, and you will enjoy your trip through Mexico.

What to Wear.

So many false ideas prevail as to the climate in Mexico being so hot, that it is in order to make suggestions as to what apparel visitors should bring with them. Wear and bring along a good supply of winter clothing, as you will need that more than any other. Take along, however, some summer clothing, too, in the event you should make a trip to the Isthmus or "Tierra Caliente," the hot country, as in that section, or at Tampico and Vera Cruz, you will need your linen suits and Panama hats, but in all other sections your winter clothing will be necessary. The climate of Mexico can truly be said to be delightful; there is no extremes of heat or cold, and all visitors are charmed with it, particularly if they have just come from the cold sections of the north. It is a common expression among Americans living in the country that "we have 99 per cent. climate and the other 1 per cent is 'quien sabe?'"

The really delightful time to visit Mexico's capital is during the summer, or rainy season. The forenoons are beautiful, and the afternoon rains keep the atmosphere cool and agreeable. It never rains in the forenoons, only in the afternoons, and there are often lapses of several days without rain. This rainy season extends from April or May to September, and often into October. From October to May again it is dry. Were it possible to impress upon the minds of those who seek refuge from the heat of the States in summer, that Mexico's capital and other Mexican cities are delightful summer resorts, there would be as many tourists coming here during the summer as in winter. This climate is healthy, and many people with lung and other troubles have found relief here.

Now, as to the altitude, there is too much thought given to it. You can be just as healthy, happy and harmonious at 7,500 feet above sea level as you can on the ocean, or at Colorado points 9,000 feet high. Forget the altitude and keep yourself busy seeing and thinking of the beauty and sublimity of the scenery of this great country, and learning all you can of its romantic history. In fact, living so much nearer heaven, one ought to be happier, healthier and more harmonious than when living in a lower altitude.

Routes to Take.

If coming from the west coast of the States, you will naturally come over the Southern Pacific to El Paso, and take the Mexican Central down to the capital, perhaps stopping at some of the interesting towns en route. If you come from the central States of the United States, you will come via St. Louis or Chicago to Laredo or Eagle Pass if via Laredo you come down to the capital by the shortest route in the republic, the Mexican National Railroad; or if you come via the gateway of Eagle Pass, you travel through a very interesting section over the International Railroad, which will connect you with the National at Monterey or the Mexican Central at Torreon. A delightful trip from New York is via the Ward Line to Vera Cruz, stopping at Havana en route, and from Vera Cruz the traveler will be charmed with some of the grandest scenery to be found anywhere in the world in his trip either over the Mexican or the Inter-oceanic routes to this the greatest city in the Mexican republic. If the globe-trotter finds himself in New Orleans for the Carnival, a trip via the Mexican-American Steamship Company from New Orleans to either Tampico or Vera Cruz will not only prove delightful, but will be restful as well, after the excitement of the festivities in that quaint southern city.

The time of the old stage coaches, taking four to five weeks, to reach Mexican points from the States, and vice versa, has gone, and in its stead the speed of steel carries one to the States from this center, by the shortest line, in thirty hours.

All the approaches to Mexico are oriental; the charm of Egypt and the East rests upon mountainous Mexico, while its low-lying, verdant valleys carry one to Palestine, filled with the olive and the vine, and above all the matchless sky of a blue more celestial than that which domes the Adriatic. It is related that Velasco, the greatest Mexican painter, who exhibited his "Valley of Mexico" at the Paris Exposition, had to assure the French critics that his skies "ne sont pas impossibles," but were perfect pictures.

The most prominent hotels in the city are the Rurbije, the Reforma, the Sans, the Jardin, Porter's Palace, Coliseo, San Carlos, Guardiola and Grand. These are all more or less centrally located. Rates run from \$35 to \$100 Mexican silver per month.

The attempt to erect an American hotel in this city is still abortive, although more than ever a necessity. The largest hotel in Mexico has not over 130 rooms. This lack of hotel accommodations has operated to discourage tourist travel to Mexico, so that last year only about 5,000 or 15,000 tourists came. As a matter of fact, not less than 250,000 tourists should visit Mexico every year, and if there were American hotel accommodations, they could do so.

Exchanging Money.

On arrival at the border or port of entry, exchange just a small amount of money, enough to pay for your meals and a few incidentals en route to the capital, and exchange the balance of your money in the city, as at the border you will get less money in exchange than at some bank here. Do the same on your return trip: exchange your Mexican money for United States money here in the city, with exception of a small amount for incidentals, and what balance of Mexican money you may have left you can change at the border. Exchange is now fluctuating between 2.15 and 2.30 so that on coming into the country, you double your money; but on going out, when you have to give two for one, you do not feel so elated.

Banks.

The following are the names and locations of the most prominent and reliable banks: Banco Nacional, 3 Puente Espiritu Santo 6; Banco London and Mexico, Lerdo 3; Banco Central Mexicano, San Agustin and Angel; International and Hipotecario, Cadena 11; American Bank, corner Gante and San Francisco; United States Banking Company, Gante No. 1; United States and Mexican Trust Company, 1 San Francisco No. 4; International Banking Corporation, Coliseo Nuevo 4; Security Bank, San Juan Letran No. 1.

Newspapers.

There are about fifty newspapers printed in Mexico City, the principal English ones being the Mexican Herald, a morning daily, and the Anglo-American and Saturday Night, both weeklies, while Modern Mexico is an illustrated monthly journal. El Imparcial (Spanish) is the semi-official government organ.

Where to Eat and What to Eat.

At Porter's Café, the Woman's Exchange, the Guardiola Restaurant, all on San Francisco street (the main street of the city,) you can get an American meal for 75 cents Mexican money, less than 37 cents United States money. At the Mission Diner on San Francisco street, and the Café Paris, Coliseo Vello 17, and the beautiful Chapultepec Restaurant in Chapultepec Park, and Sylvain's, above the Café Paris, you can dine sumptuously. As a rule, prices are a la carte. At Bach's, on San Francisco, and Weber's, on La Palma street, you can drop in for a little Bohemian lunch, with lager and pretzels. At the Café Imperial, you can get toothsome dulces. As some

people like to get a real Mexican dinner in Mexico, they should go for such to the Restaurant Central, the Louvre, or the Concordia.

What to See.

A delightful resting spot in the heart of the city, facing the driveway, is the Alameda. It is the largest park in the capital, and on Thursday and Sunday mornings the excellent military bands of Mexico furnish most captivating music, until one feels he would like nothing better than to dream away life in this charming park.

Next comes a visit to the Plaza Mayor (or Zocalo.) It is the center of the city's official life. For centuries it was the soul of the capital from which radiated the influences that have shaped Mexican history for 400 years. Here the Aztecs built their first temple, encircled with their humble huts in the year 1325. Here the Spanish conquistador, in 1522, commenced the capital of New Spain. Strange processions have tramped its cobbles, only recently raised to the dignity of asphalt; here the "parade of the banner" is held on the 13th day of each August by the old viceroys in celebration of the conquest of 1492, the procession of the Inquisition, with its green cross and its group of unfortunate victims. This Plaza heard in 1821 the "vivas" of the Mexicans for Agustin Iturbide; in 1847, the American flag was carried over the cobbles and placed in triumph on the National Palace; in 1863, the unspeaking stones beheld the tri-color of the "Grand Nation." In 1864 Maximilian was cheered as he rode in; and in 1875, the same volcanic people greeted Gen. Diaz as their political savior. Surrounding the Plaza are historic buildings. The National Palace, the Great Cathedral, the City Hall, and the Government Pawnshop, or "Monte Piedad." Count Revillagigedo, in 1788, improved the Plaza by driving out the peddlers, and in 1830 the equestrian statue of Charles IV, which now stands at the head of the Paseo de la Reforma, was erected in the Plaza. It is called the "Zocalo" because a zocalo, or foundation, was started forty years ago for a monument to Mexican independence,

of the republic. This might have been a religious faith and emblemment has been quarter of a century, but haps few people have suffered some struggling for the church. The struggle lasted under the great Juarez in the property, valued then at \$200,000, and even the Cathedral is government to the church, and government at any time for been the solitary and forbidden the exceedingly handsome church, other churches and convents. The crowned with its graceful dome the slender lantern, was the who designed the school of Charles IV. The big bell, Guadalupe, the largest bell in the tower. It was placed in seventeen feet in height, and

While the Aztec teocalli, was at its time the largest Cathedral of Mexico is third in the American continent that John the Divine in New York, thick walls, the building measured south, 177 from east to west, and of 173 feet.

The interior forms a Latin over which swells the Roman fourteen chapels in the Cathedral great and grand that at one time



PEAK OF ORIZABA.

Second highest mountain on North American Continent.

which was never completed. The Plaza has been stripped of its halo of romance by the decidedly modern equipment of electric lights, improved pavements, and an exquisite garden in the center. While the finishing touch to the old, as it is elbowed into oblivion, is the depot with converging lines occupied by the street-railway system of Mexico, operated by electricity.

The Cathedral, or Holy Metropolitan Church of Mexico, was built upon the site of the great Aztec Temple, which the Spaniards destroyed in 1521. A very small church was built upon that site in 1524, which was replaced in a few years by the first cathedral, but whose comparative splendor was overshadowed by that of the present structure. King Phillip II of Spain obtained permission from Pope Clement VII to destroy the first cathedral and make room for the second. The corner-stone was laid in 1573; in 1615 the foundations and part of the walls were completed; in 1623 the sacristy was roofed; in 1625 the first services were held in the sacristy; from 1625 to 1635 work was suspended by the great flood that devastated the city. It was partially dedicated February 2, 1664, and finally dedicated in 1667, being nearly a century in building, exclusive of the towers, which were completed in 1791. The entire cost of the work was about \$2,000,000, independent of the slave labor of the Aztecs, which, if paid, even at 10 cents per day, would have been \$30,000,000. The facade between the towers is divided by massive buttresses into three orders of architecture; the lower, genuine Doric; the upper an extravagant Ionic, and the third an ornate Corinthian. The basso relieve, statues, friezes, bases and capitals are of white marble, which gives a pleasing effect, mingling with the stone. The towers are 205 feet and 6 inches high, in two architectural divisions, the lower, Doric, and the upper, Ionic, each capped by a bell-shaped dome. The cornices immediately beneath the domes of the towers serve as pedestals for stone statues of the doctors of the church and the patriarchs of the monastic orders. Could they have been garlanded into life like the Greek maiden in Nioche, they could tell wondrous stories of the strange and conflicting interests that have passed like uneasy dreams in the rocky plaza below. The cornices of the central portal are occupied with statues of the Theological Virtues, with their attributes. Beneath the clock are blazoned the arms

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National Palace.

On the east side of the Plaza is the Mexican republic, occupying a frontage of over 675 feet. The improvement at present under way over \$1,000,000, contemplates the the Palace features, as for instance will be housed in the new Capitol erected near the Paseo. At present square-cornered towers, the emerald grates before the windows, and a palace, and it has been a plan. It is like a relic of colonial days, which Cortez erected on this site for \$25,000 and in 1822 was great mob of Mexicans. The gun that year. The outer walls recall the stormy past, for the made thick, and very built to the brought from Mexico. Independence Day. The central very big affair, a square of rounded by forty arches in Besides the Senate Chamber, the business office of the President, Treasury Department, the

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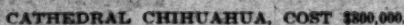
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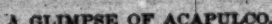
of the paintings in the golden-hearted Bishop to him to stain the Indian The picture represents a man stands with folded arms for pity and protest the doorway of the Aztec Temple about his robes in her scheme in gray and brown and simplicity of freedom of the world, and affords the future of Mexican art.

of the paintings in the Academy of San Carlos, the Museo de las Casas, Protector of the Indian, the golden-hearted Bishop of Chiapas who was the first to stop the Indian massacres at the end of the sixteenth century. The picture represents an Aztec king lying dead at the feet of the survivors, who are standing with folded arms looking up to him for pity and protection; behind him is the doorway of the Aztec Temple. Erect, pitiful and grand old man holds aloft the outraged and bleeding heart for the life of the Indians, who stand about him in their pathetic abundance of robes in gray and brown. In nobility of feeling and simplicity of treatment, and strength of expression, this painting ranks as one of the best in the world, and affords ample ground for the opinion that the art of the Aztecs was the acme of Mexican art. It was painted

known as "La Minería," is considered the most imposing building, both in size and architectural treatment, in the capital. It is located on Calle San Andres, in the street behind the Jockey club. This building was completed in 1813, at a cost of \$1,597,495, and was designed by Don Manuel Tola. The construction was faulty with



respect to the foundation, and due to earthquakes the building has settled in places, but so firmly unit is the structure, which is of solid one, that it stands practically uninjured. It has five courts, galleries and stairways, and one hall of magnificent proportions. The chapel is decorated richly, containing a very elegant altar of bronze and upon its walls and roofs frescoes by the Mexican artist, Jimeno. The altar and all decorations of the chapel are all preserved, but the chapel is now used as the library of the School of Mines. It was in



A group of three heroic statues decorates the Paseo de la Reforma; and a fourth, grandest of all, the monument of Independence and Peace, is being erected on the way to Chapultepec. The equestrian statue of Charles V stands at the entrance to the Paseo. It represents the Spanish monarch on horseback, and is the largest piece of single bronze and the most notable public monument on the western continent. The height of horse and rider is fifteen feet, nine inches, and the weight 60,000 pounds. The

This is one of the most striking monuments which adorns the capital, combining as it does the modern and ancient schools of art. The last Aztec Emperor represented in a statue of bronze, five meters high, in the act of throwing his javelin. The picture is splendidly proportioned and perfectly poised, and faces the East, as if in defiance of the Spaniards, who came into the Valley of Mexico, between those eternal gates of sunrise, Popocatepetl and Ixticihuatl. The pedestal is of stone carved with fluted columns, and is typical of the Aztec architecture. There are two scenes in the life of Cuauhtemoc in bas-relief; one when he was in prison and the other of his torture. On the four sides of the pedestal are the names in bronze of the four Aztec generals—Cuitlahuac, Coanacoeh, Tetlepanquetzal and Cacama. The monument was dedicated August 21, 1887, and is the work of Francisco Jimenez, a Mexican sculptor.

Chapultepec.

Like a white bird on gray rocks is the historic castle of Chapultepec, the "White House" of Mexico, the home of its heroic President. The hill is a mass of rock, 200 feet higher than the surrounding country, and is called Chapultepec, or "Hill of the Grasshopper," according to the Aztec legend. Under the giant ahuehuete trees of Chapultepec, which are reputed to be 5000 years old, Montezuma wandered smoking his "tobacco mingled with amber," and dreamed those strange dreams of the children of the sun, whose ails, even then unknown to him, were whitening the coasts of Tabasco. Against the rude bark of one of these phantom forms, those colossal giants of Chapultepec, was outlined the vision of the cross, a peculiar legend in Aztec history—strange prementiment of the oncoming religion so rigorously enforced by the sword. Somewhere under that rocky pile are said to be the unknown, deep-hidden tombs of the Aztec kings. The place is redolent with the languorous past. Even Maximilian caught its restfulness in the few moments of leisure he enjoyed during his brief and unnecessary reign in Mexico. The ragged rocks resounded in 1847 to the resistless advance of the American soldiery, who never stopped until they had unfurled the far-fung battle flag of the United States. Aztec, Spanish, American, French and Austrian flags have described their graceful folds above the castle walls, to give way in the end to the triumphant tri-color of Mexico, destined to float forever as the unwritten prayer of the republic.

In 1783, Viceroy Don Matias de Galvez (the same viceroy who built the city of Galveston) obtained permission from the King of Spain to repair and place in order the palace of Chapultepec, a task taken up by his son and successor, Viceroy Bernardo de Galvez. This palace was completed in 1785 at a cost of \$308,000. In 1822 and 1823 plans were perfected for making Chapultepec the presidential residence. This work was completed in 1827 at a cost of \$260,000. Surrounding the palace is a handsome public square and park, and when the aesthetic plans projected by Finance Minister Limantour are completed, Chapultepec Park will be one of the most beautiful in the world.

The castle is, indeed, a beautiful building. A double row of light, elegant arches, in white and pale tinted marbles, marks the broad colonnades, from which the main body of the palace springs into the air with an effect of great delicacy and beauty. Fronting all the rooms upon these marble balconies, and on the uppermost flight reached by an exquisite stairway, have been built fountains and terraced gardens. Around under the arches the walls have been painted in fine copies of Pompeian frescoes and Greek designs, executed with great purity of both color and form, although recently Mexican artists have drained the fountains left in the natural by Maximilian

The President and his family live at Chapultepec in summer time, and passes can be secured to visit the castle from Señor Intendente, D. Joaquin Larraide, at the National Palace. From the same officer cards of admission can be secured to visit the National Palace.

The "West Point" of Mexico, the Military Academy, is located to the rear of the Presidential mansion at Chapultepec. The officers of the army are trained here. There are about 300 cadets.

Guadalupe—The Vision of Juan Diego.

It is a mooted question whether the Virgin appeared to Juan Diego: if what Incalabeta the eminent Mexican historian, claims is true, and the legend is invented by the Catholic Church to emphasize its hold on the Mexican Indians, Mexico loses her patroness. This view has, of course, been fiercely contested by the Church. Whether the legend is true or not, it is interesting. On the morning of Saturday, December 3, 1531, the Indian neophyte, Juan Diego, as the story goes, was on his way to hear the gospel expounded by the Franciscans. His home was at Teotihuacan and he had to pass the hill of Tepeya or Guadalupe. While on this trip, the Virgin Mary—"Mother of God," as designated in the good Catholic annals, appeared to him, and directed that the Indians of Mexico build a church in his honor on that hill. He reported this to the bishop, but the bishop requested that the next time she appeared to him he should ask for a sign. She appeared to him the next morning again, and he asked for the sign. She told him that she would give him a sign the next morning. On arrival home, Diego found his uncle seriously ill. The following morning he set out by another route, to avoid the vision, to get a priest to minister unto his dying uncle. Notwithstanding he took a different route, the vision appeared again, and told him to climb the hill, where the little chapel now stands, and to pluck the roses that would find growing there, and she directed that he fill his tilma with them and carry them to the bishop as a sign. She also told him not to worry about his uncle as he was at that moment sound and well. He doubts the finding of roses at that time of the year on the hill but he climbed up, as she directed, and found the roses and filled his tilma and brought them to the bishop, as he was opening out his tilma, the flowers fell to the ground and the miraculous picture of the Virgin was found impressed on his tilma, to his and the bishop's surprise. The bishop fell on his knees and spent some time

prayer. He then untied the films from the Indian's neck and temporarily placed it over the altar in his private chapel. To the spiritual vision roses are ever blooming, and we too can find them when we listen to the testimony of the most fecund and prolific hunting preserve on the American continent. Small fowl used to be bagged by the million in the Valley of Mexico in the vicinity of Lake Chalco, but the lake being drained off by the Noriega, and turned into barley and corn fields, the fowls have scattered southward. Old Aztec accounts give prodigious lists of game fowls gathered for the Imperial table, and among them what is known as the American bird (turkey) indigenous to the Mexican continent. They are found wild in the central plateau of the republic. Duck shooting commences at the beginning of November, on Lake Chapala, and continues until the end of March. This charming lake, one of the most beautiful on this side of the Atlantic, is located on the Guadalajara branch of the Mexican Central Railroad. It is the home of the wild duck, and among the varieties of fowl to be found there are the mallard, widgeon, teal, sprig, brant and spoonbill, and there are millions of them. Thousands of geese also cluster above these waters. Swans also prevail until the rains begin to come. The lake teems with snipe and sandhill cranes. Lake Chapala is about seventy-five miles long, and varies from fifteen to twenty-five miles in width. There is but one hunting country in the world that resembles Chapala, and that is California. The marshes in San Joaquin and Yuba counties have much in common, but the lake bottoms in California have been shot over for fifty years, while those around Chapala are so virgin that a thousand men could easily hunt without hitting each other, or each other's game, among the tall, luxuriant grasses of Chapala. There are miles and miles of land which as yet have not heard a gunshot. There are no game laws in Mexico, consequently no close season, except what the birds themselves choose as mating time and breeding time come round. Chapala must grow in popularity among American hunters, who are now limited to small preserves on Chesapeake Bay, along the Jersey swamps, as well as in California, Virginia, Florida and the palmetto parcels of the Carolinas. They can come here and have a solid month's hunting, and when they tire of bagging fowl they can take their larger guns and go over into the vicinity of the Panuco River, on the Gulf coast, and for hundreds of miles in the alluring sections of the Huasteca, find plenty of wild game, such as mountain lions, panthers and wild cats. Deer abound in Queretaro, Chihuahua, Coahuila, and in portions of San Luis Potosi. Among regions of rare beauty, surrounded by a race as old as the Egyptians, as picturesque as the Arab or Hindu, above them skies bluer than those of the Adriatic, about them a perfect prodigality of tropical vegetation and the unstinted song of some of the most beautiful birds known to naturalists, the American who wishes to escape the biting winter of the northland can find a paradise, so far lost, to recompense his restlessness, recoup his strained energies, and satisfy his scent for sport.

whereby a cherub holds the crown above the picture. The shields are surrounded with diamonds and connected with rows of sapphires and emeralds. In the breast of each angel flames a ruby. It is said it takes a million

Liquor Drinking and Temperance Work.

The prevalence of the drink habit, attested by the fact that there is in Mexico City at least one pulque joint for each two hundred and thirty people, is responsible for much of the danger toward which the children of the poor daily drift. This white curse of Mexico not only stupefies and stultifies the head of the family, but throws its withering control over the mothers and over the children, for all classes drink it. A Mexican mother has been known to drink habitually twelve schooners of pulque a day, and the children take to it naturally as soon as they are weaned. A report just published by the Attorney-General of the republic for the year 1900 gives some astonishing figures as to criminality prevalent in Mexico. Out of an average of 296 delinquents, selected on a certain day that year, and giving a fair idea of the annual showing, the delinquents were ranged as follows: From 10 to 19 years, 57; from 20 to 29 years, 149; 30 to 39 years, 82; 40 to 49 years, 24; 50 to 59 years, 4; and 60 to 70 years, 2. It will be seen that the average of delinquents between 10 and 19 years of age was equal almost to that ranging between 20 and 29 years of age, and that one-quarter of the entire number of delinquents were children below 19 years of age. In view of this astonishing exhibit, too much cannot be done to add any movement like that now proposed.

W.C.T.U.

There are two branches of the temperance work conducted, one by the Americans and the other by the Mexicans. The Mexican was organized in 1898, has ninety-five active and twenty-five honorary members, and meets at the Trinity M. E. Church in Gante street. The American was organized January, 1901, and has twenty members.

Temperance agitation has been in the air in Mexico for at least a dozen years. Mr. Demarest of New York, the prohibitionist enthusiast, came to Mexico and gave out some of his famous medals, and later was followed by Mrs. Stoddard of the W.C.T.U. of the United States. This work was scattering, but Mrs. Addie Northam Fields, who came here about three years ago, gathered the loose threads of the movement, and perfected a more systematic campaign against the drink habit in the republic, a work in which she has been sustained by the President and the Governors of the various States.

It is a singular fact that there is more pulque consumed in Mexico the year round than there is meat. In 1900, when the population of the city was 325,000, the meat consumed in the capital was valued at \$2,000,000, and the pulque at \$5,000,000. In 1902, when the population was 375,000, the meat consumed was \$4,000,000, as against pulque \$6,000,000.

It requires a large police force to handle conditions even under the improved legislation. The police force of Mexico is divided into infantry and mounted police. Of the former, the force is composed of one major, one

of the several owners. Tacubaya is twenty minutes time from the center.

There is a legend that many years ago passed under what is now called the

CORDOBA (Mexican Railroad.) One hundred and ninety-eight miles on the Mexican Central Railroad of the coffee-shipping district.

CUERNAVACA (on the Cuernavaca Mexican Central Railroad.) It is called "The City of Beauty," and is one of the prettiest, cleanest towns in Mexico; balmy air always. The gardens of Cortes and Maximilian; noted, too, for the Boeda gardens. Elevation 4931 feet, and 100 miles distant from the Mexican capital.

GUADALAJARA (Mexican Central Railroad.) "Pearl of the Occident," has a population of 100,000 miles distant from the capital; elevation 5,000 feet; class hotels and sanitarium. Barranca de Oblatos from Guadalajara.

GUANAJUATO (Mexican Central Railroad.) One of the most famous mining cities of Mexico; population 100,000; elevation 6337 feet; 250 miles distant from the capital.



A BIT OF CHIHUAHUA.

Chih— noted for its catacombs; also for being the hillside.

IGUALA (Mexican Central.) Ten hours from former seat of Toltec power; retreat of many beautiful places in Mexico, with tamarisks in 1932, three and a half feet thick. Just below Cañon, the deepest cañon in Mexico, the road runs.

JALAPA (Interoceanic Railroad.) Population 4395 feet; 238 miles from Mexico; on the Vera Cruz and the Gulf coast, seventy miles below, may be seen.

LAKE CHAPALA (Mexican Central Railroad.) Noted by Baron Humboldt to be without equal beauty. All-year resort; delightful climate, fishing, boating, bathing, first-class hotel, etc.



LANDING AND ELECTRICAL POWER HOUSE—CEDROS ISLAND.

Clubs.

THE JOCKEY CLUB—Organized in 1883 to exercise general control over racing in Mexico, with seventy-five shares of \$1500 each. Its president is Gen. Francisco Z. Menz; first vice-president, Sebastian Camacho; second vice-president, Gen. Elinco Gallardo, and secretary, Lic. Genaro Ralgaosa. It occupies one of the handsomest buildings in Mexico, on first San Francisco street. It is composed mainly of wealthy Mexican members of the community.

THE AMERICAN CLUB—Organized in 1895, and is located above the American Bank at the corner of San Francisco street and Gante, with entrance on Gante street. It is very handsomely fitted up. Its present officers are E. O. Harnecker, president; H. W. Belover, first vice-president; W. G. Moler, second vice-president; C. W. Whittemore, secretary, and F. J. Dunkerley, treasurer.

THE BRITISH CLUB—Quartered at Colloco Viejo, No. 21; its present officers are J. M. Anderson, president; James Walker, vice-president; Capt. E. A. E. Halliwell, secretary, and R. A. H. Watson, treasurer.

THE DEUTSCHES HAUS—Colegio Ninas 4. It is the oldest club in Mexico, having been organized in 1848. Its present officers are: President, E. Albert; vice-president, H. Boker; treasurer, Chr. Strausburger; secretary, Fr. Lesaman.

THE DEUTSCHER VEREIN—Zuleta 14. Was established in 1892. Its officers are: President, Donato de Chapeaurange; vice-president, E. Otto; secretary, F. Kladi; treasurer, Gustavo Scholtz.

THE FRENCH CLUBS—Cercle Francaise, Palma street, No. 11, was organized in 1888. Officers: President, S. Collet; vice-president, E. Planchu; secretary, Alph. Michel; treasurer, C. Markassua.

Cercle Union, Vergara 16, has 160 members, and its present officers are: President, Henry Myard Mille; vice-president, Joaquin Cuevas; treasurer, George Pinson; secretary, Charles Valle.

NATIONAL CLUB—The National Club was organized in 1886, and is located at 22 San Francisco, No. 12, upstairs. Its membership is 200. Members mainly Mexicans.

THE SPANISH CLUBS—The new and handsome edifice will soon be ready for occupancy. It is located at Pte. Espiritu Santo. This Casino Español is very artistic, and another ornament to the city.

WOMAN'S CLUB—The Woman's Club is located in Calle Delores. It has three departments, literary, social and philanthropic. Mrs. Powell Clayton is its honorary president, and Mrs. William Heinke its honorary vice-president. Its present officers are: Mrs. George T. Hilbert, president; Mrs. W. S. Farnsworth, vice-president; Mrs. Loring Olmstead, treasurer; foreign secretary, Mrs. C. M. Porter; recording secretary, Mrs. J. W. Burns; home corresponding secretary, Miss A. Maud.

WOMAN'S EXCHANGE—The exchange was established in 1902 for the purpose of aiding both English-speaking and Mexican women. The rooms are open daily from 10 a.m. to 5 p.m. The membership consists of seventy-five patronesses, who pay \$1 per month, and 197 members who pay \$1 per year. A commission of 10 per cent. is charged for sales. From 1 to 3 p.m. luncheon is served most daintily. It has become quite a favorite place to lunch with the resident American and English people, and will become more popular as it becomes known to tourists.

Fancy work of all kinds is displayed in its front room, and the prices are reasonable. It is comfortably located on the second floor of second San Francisco street, No. 14.

The ladies of the Woman's Exchange and other charitable

adjutant, eight commandants, 72 officers and 70 police of the first class and 1700 of the second class; the first class receive \$1.75 per day, and the second \$1.50. The mounted guards consist of 1 major, 1 adjutant, 4 commandants, 21 officers, 41 sergeants and 380 mounted policemen. The sergeants receive wages of \$1.50 per diem, and the mounted policemen \$1.25.

Mexico has multitudinous drinks, native and foreign. The principal native drinks are pulque, tequila, pifa, aguardiente and lechuguilla. Pulque is the most ancient drink today in this city. In fact, its origin is involved in fable. No one seems to know when and where it got the name it bears. The Aztecs found it in the valley when they came, and called it neutil and ocell, while they called the plant itself metl. The Toltecs claim the doubtful honor of its discovery. It is said that a noble Toltec named Papanzin discovered the art of extracting the juice from the maguer, and sent some of it to his sovereign, Tecapaltzin, as a present, by his daughter, the supposedly beautiful Xochitl, the flower of Toilan. The King kept the drink and the maiden, a willing prisoner, and afterward placed their son upon his throne. This was the beginning of the trouble of the Toltecs. In the year 1000 A.D., and the trouble the pulque thus prettily introduced it has kept up since, down through the ages.

Pulque taken by itself is more of a stupefiant than an intoxicant, but the poorer class mix it indiscriminately with tequila and other liquors of a low nature. Then the trouble commences. Tequila is made from another form of the maguer plant, which is somewhat smaller than the pulque plant. It is principally made in the State of Jalisco. Mescal is another Mexican drink, from still another of the troublesome maguer family, that grows on the very highest lands of the continent. Lechuguilla, which is milder than tequila is from the same family; it is a fermented intoxicant. Aguardiente is a brandy, and pifa is another form of mild intoxicant. Catalan is a liquor native to Spain, but is now made in Mexico. All these liquors are more or less affected by the prohibitory decree. But the decree will mostly rest on the saloons where absinthe, cocktails and American and Mexican drinks vie with one another in their shooting qualities.

SIDE TRIPS.

ACOCOTLA (Mexican Railroad.) Elevation 8333 feet; highest point on this road; distance 153 kilometers; gives a view of the four volcanoes, Orizaba, Malinche, Popocatepetl and Ixtaccihuatl.

AGUASCALIENTES (Mexican Central Railroad.) Population 46,000; elevation 6179 feet; 354 miles. Famous for its hot springs and the beautiful drawn work.

ALTA LUZ (Mexican Railroad.) Two hundred and fifty-eight kilometers; first view of the Maltrata Valley. Road descends 3000 feet in eighteen and one-fourth miles.

AMECAMECA (Interoceanic Railroad.) Population 10,000; elevation 9000; thirty-six miles. Near base of

Stage line meets trains from Guadalajara daily.

ORIZABA (Mexican Railroad.) "The Jewel of the tropics, 182 miles from capital city."

FUEBLA (Interoceanic and Mexican Railroad.) Elevation 125,000; elevation 7043 feet; 114 miles from the City of Mexico; called "The City of the noted cathedral; medicinal baths."

TOLUCA (National Railroad.) Forty-five miles from the City of Mexico; elevation 7000 feet; beautiful industrial city; fine hand-made lace.

PATECUARO (National Railroad.) 100 feet, on Lake Patzcuaro, ten by twenty miles from the City of Mexico; near by Titlan's "The Entombment."

VERA CRUZ (Mexican, Interoceanic Railroad.) Important seaport; the location of harbor and sewer works.

TAMPIOCO (Mexican Central Railroad.)

TUXPAM VALLEY. Reached by stage from Vera Cruz; one of the most delightful sections of the country, so far very little known to the American. It is situated in the State of Vera Cruz. It is a secluded spot in the northwestern part of the State, and nestling among the ever verdant hills with palms that are truly oriental, and grandeur of tropical vegetation, it is one of the fertile valleys in Mexico, called "Tuxpam Valley." It is tributary to the town of Tuxpam, which is located seven miles from the Gulf of Mexico, for raising coffee, sugar, rubber and other products. It is secured at \$10 Mexican money, per acre, and three to five miles from the city limits, and at the same price. These lands will produce in value when the Mexican Central Railroad projected short cut to Tuxpam port. Now now practised in the Tuxpam Valley, in 1900, per 100 acres is 16750. The trees are planted apart, and will give 20,000 trees to the acre in seven years of age the trees will produce a pound of crude rubber. The estimated product at \$1 (Mexican silver) per pound, harvesting the product, will not a profit of \$1000 per acre.

Tuxpam is a spot of ideal climate and a death rate in the valley is very low, per week in a population of 14,000 inhabitants are already some Americans located within ten miles of that city, all of them engaged in agricultural pursuits.

MORELIA (National Railroad.) Two hundred and thirty-five miles from Mexico. It is called "The magnificent." Has one of the most beautiful cathedrals in Mexico, the Alameda, and a stone causeway.

VALUABLE

POPULATION OF MEXICO (1900)

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LOWER CALIFORNIA.

A TERRA INCOGNITA RICH IN NATURAL RESOURCES.

NEAREST foreign soil to the State of California, and separated from it by no natural barrier, is the Peninsula of Lower California, one of the largest and most important territories of Mexico. Cut off as it is from the main body of the republic by the Gulf of California and the Colorado River, this uttermost fringe of the Mexican domain stretches away from the southern end of California over ten degrees of latitude until it culminates at Cape San Lucas, just within the tropics.

Nearly a century before the first of the famous California missions was founded, the padres raised the banner of the Cross in Lower California, and it was only after it was firmly planted throughout the peninsula at it was borne northward, by degrees, until there

resources below the Southern California border, where the same natural conditions for the production of wealth and the enjoyment of health obtain. But it is while the soil is yet in its virginity and the mineral treasures of the mountains as yet practically untouched, that the best opportunities for investment exist, and the time for capital to seek investment there will never be better than now. The door to this treasure-house stands open. Lower California Development Co. (Ltd.)—Mexican Land & Colonization Co. (Ltd.)

Nearly all the lands in the Northern District of Lower California, something over 14,000,000 acres, belong to the Mexican Land & Colonization Company, Limited, and the Lower California Development Company, Limited, two large English corporations, whose purposes, as their names imply, are to colonize and develop their immense holdings in this portion of the republic of Mexico. These corporations are at all times anxious and willing to assist colonists and others who evince a de-

are becoming gradually depleted, there is opportunity to furnish a large amount of food consumed in the States. In the northern portion of the district is a vast alluvial plain, the Imperial district, of San Diego, where cattle can easily be conditioned.

Horses, mules, sheep, hogs, goats and poultry are raised in various parts of the territory and are profitable. The hilly coast region is well adapted to the raising of sheep and Angora goats.

Farming and Mining.

The soil is prolific in all the valleys and there is an abundance of water to be had for the agricultural lands, at no great distance from the face. Pumping plants, such as are in use in the fertile belts of Southern California, will give enough moisture to irrigate large areas of land can be purchased at prices ranging from \$5 per acre.

The only farming at present conducted on a large scale in Lower California is wheat growing, many thousands of acres devoted to this crop, in the vicinity of Ensenada. The Lower California Development Company has two large flouring mills, one at Ensenada and one at Quintin, a small seaport 112 miles from Ensenada, and practically all the wheat grown is converted into flour of an excellent quality for export trade. What is not needed for export is shipped to Mazatlan and other ports. Maize, beans, potatoes, vegetables and a variety of fruits, including figs, are grown for home consumption.

Mines and Mining.

Undoubtedly the chief wealth of the peninsula, it being well known that the portion of the peninsula is highly mineral. Some rich quartz ledges have been found to carry heavy gold values to a considerable extent.

The principal mining districts in the peninsula are: Alamo, Juarez, San Felipe, Agua Dulce, Socorro, San Francisco and the copper district extending from below Canoa Point, in which region the per croppings have lately been very promising from the outcroppings and promise of being one of the largest copper producing regions in the world.

The Peninsular Mining and Smelting Co. General Manager A. H. Mufford, has about 10,000 tons of copper ore on hand, a smelter ordered. The Evangelina mine, sufficient ore to warrant the building of a coproduct with the railroad to the Peninsular Smelting Company's smelter, and the G. B. McAneny are of such extent that the little work done on them, that they are prepared to enter into a contract with the Peninsular and Smelting Company for their connecting roads to the smelter.

Cedros Island has shown vast improvements in the management of General Manager George I. monthly shipments of copper ore averaging 100 tons, copper and carrying gold values are now made, and a contract has been made with General Manager Brown and the Peninsular Company for monthly shipments of the ore per month, for a lengthy period.

In addition to gold, silver and copper, there are also found diamonds, rubies, sapphires, emeralds, etc.

Int

One

AMECAMECA, situated at the starting point of the ascent of the Natural Toboggan Slide, is about 100 hours from snow line to the coast.

CUAUTLA: Coffee, Cacao. Practically all the fruit of the "Hot Country" may be found here in most delightful at all seasons.



The only Standard Gauge Line reaching

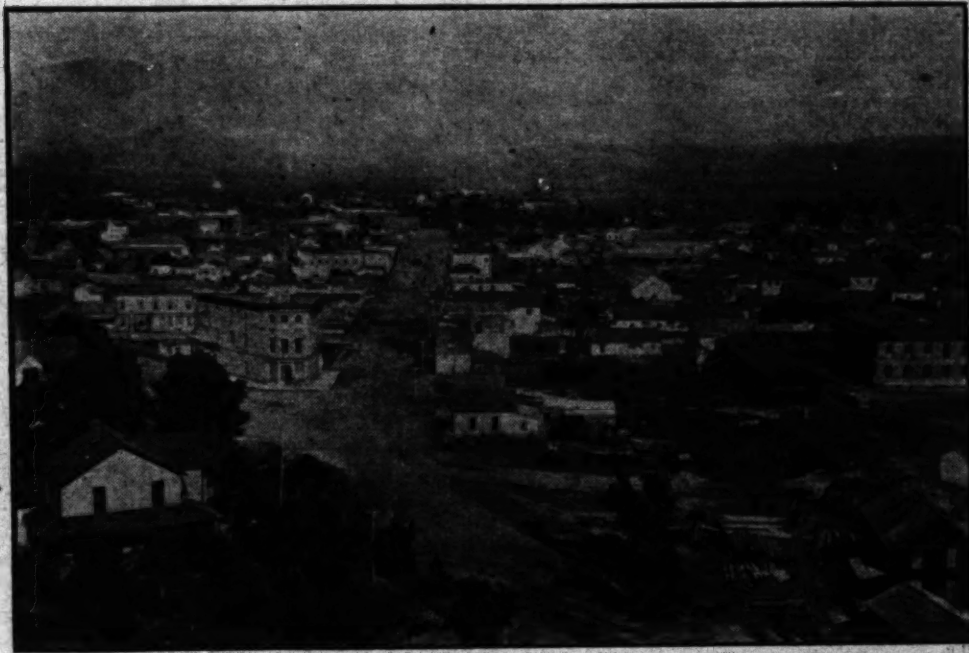
THE SCENIC BEAUTY OF THE SWITZERLAND road descends to the sea, offering scenic scenery on earth only by the M

Day and

Solid Vestibule Pullman



DANING LINE



ENSENADA DE TODOS SANTOS.

was established a chain of missions along the Pacific Coast, reaching from Cape San Lucas to San Francisco Bay. Thus it was that Baja (Lower) California took precedence over Alta (Upper) California in the colonial days, long before the first mission in Alta California was established on San Diego Bay.

Early History.

Lower California became known to Europeans as early as 1534, only forty-two years after the discovery of America by Columbus. Cortes, the "Conquistador," having conceived the idea that the western peninsula was the great treasure-house from which came the costly pearls and other gems and precious metals found among the treasures of Montezuma's capital, sent two of his trusty lieutenants, Grijalva and Mendoza, to explore and despoil the land. Crossing the gulf, which they named the "Sea of Cortes," they landed on the southeastern shore of the peninsula, which they, supposing it to be entirely surrounded by water, named "Isla de Perlas," on account of the prevalence of pearls in the surrounding waters. For a century or more the land was infested by bands of pirates and buccaners, and many expeditions were organized in quest of gold, the most of which resulted in disappointment and failure, for, though the country abounded in minerals and the waters teemed with pearl-producing oysters, these treasures were not to be obtained by the early explorers, they not being prepared to lead the strenuous life of the miner or the pearl fisher.

But for the seal of the Jesuit missionaries, Lower California might have remained the abode only of a few pearl fishers, scattering tribes of aborigines and bands of outlaws, for an indefinite period. Between the years 1696 and 1763, the Jesuits founded thirteen missions on the peninsula. In the last-named year the missions were taken over by the Franciscan Fathers, who extended the work into Alta California. The Dominican monks also established a number of missions on the peninsula during the latter part of the eighteenth century. Most of the old missions are now in ruins, but they served their purpose in laying the foundation for the present state of law and order, coupled with commerce and industry, that obtains in all the settled portions of the peninsula.

The government of the peninsula is territorial in form, being divided into two districts, Northern and Southern, each with a separate political and military head under the direct supervision of the President of the republic. The dividing line is the 28th parallel of latitude which bisects the peninsula. In area the two districts are about equal, the Distrito Norte de la Baja California, with which this article principally deals, containing 26,990 square miles, the entire peninsula containing approximately as much land as the State of Illinois.

Italy of America.

Southern California, that is, the coast region extending from Point Conception to the Mexican line, is often referred to as the "Italy of America." The simile is not complete without including the peninsula of Lower California. Like Italy, the interior of Lower California is mountainous, and the extensive coast line of both countries is broken in many places, indented by many beautiful bays and dotted with picturesque islands. For its area, Lower California has a longer coast line than any other country in the world, not excepting Cuba.

The climate along the immense stretch of coastland is delightfully semi-tropic. In the uplands of the peninsula the climate is temperate, snow sometimes falling in the higher altitudes. The highest peak, San Pedro Martir, towers to a height of about 11,800 feet above sea level. Several lofty ranges traverse the peninsula from end to end. On the whole, the climate and soil of the Northern District of Lower California are about the same in variety as the climate and soil that have made Southern California famous the world over.

The Open Door.

What Lower California wants and invites is the thrift, capital and enterprise that have transformed Southern California from a semi-arid waste to a garden spot of the world. Who knows but it may yet rival its prosperous neighbor in the variety, quantity and quality of its products? There certainly is a field rich in natural

resources to engage in farming or other legitimate industry. The head offices of the companies are in London, England, with branches in the City of Mexico, and Ensenada, the capital of the district. The general manager of the companies' business on the peninsula for the past six years has been J. H. Packard, a man of wide experience and great executive ability. A decided change for the better has taken place since Mr. Packard took charge at Ensenada. His policy is to encourage and foster all legitimate lines of industry and to develop the agricultural and mineral resources of the country and in every way assist the colonist and investor. General Manager Packard, prior to coming to Lower California, had large agricultural and mining interests in Florida and is a man who has a firm grasp of affairs, and the rapid development of the companies' extensive interests under his management is a foregone conclusion, if the future may be judged by the short period that he has been at the helm. No effort is made to lure people from other climes to Lower California, by



PASTORAL SCENE IN LOWER CALIFORNIA.

"LOWER CALIFORNIA"

representing that it is a Garden of Eden, where people can live without working, or accumulate wealth by lightly scratching the soil. Gold there is in abundance throughout the peninsula, as well as other minerals of value, but it requires labor and capital to get them out. Mr. Packard has built himself a beautiful country home, five miles from Ensenada, on a fertile mesa overlooking Ensenada Bay. There he is conducting an experimental farm, to show the agriculturists of Lower California what can be accomplished by scientific farming and irrigation. A steam engine and windmills lift sufficient water from shallow wells to irrigate several hundred acres devoted to fruit, vegetables, alfalfa and general crops. Everything grows luxuriantly wherever soil and water meet. The tree and plant growth in the short time the experiment has been in progress has been remarkable. Around the Packard home there is a profusion of flowers, vines and shade and fruit trees, planted less than three years ago, that would require at least ten years of growth in a less favored climate.

Live Stock Industry.

Mr. Packard is also devoting considerable attention to the live-stock industry. He has thousands of cattle scattered over the ranges, especially in the wooded uplands, where there is an abundance of good pasturage and water the year round. Cattle-raising promises to be one of the great industries of Lower California. The country will support great herds of live stock, and as the ranges of the western part of the United States

among the mineral products iron, lead, quicksilver, sulphur, salt and copper. Besides the fishing, which is as good as California coast, the shooting, both for game, is unexcelled. There is any amount of quail, etc. Deer are well-nigh extinct in California, and so tame that they can be killed with a stick. Antelope roam the hills and the mountains of Lower California, the only place left where the hunter may find sheep without spending thousands of dollars.

Sportsman's Paradise.

Lower California is a veritable sportsman's paradise. Besides the fishing, which is as good as California coast, the shooting, both for game, is unexcelled. There is any amount of quail, etc. Deer are well-nigh extinct in California, and so tame that they can be killed with a stick. Antelope roam the hills and the mountains of Lower California, the only place left where the hunter may find sheep without spending thousands of dollars.

Interoceanic Railway

One of the Four Large Systems of the Republic

TO THE TROPICS

ARE YOU LOOKING FOR PROFITABLE INVESTMENTS?



POPO

AMECAMECA, situated on our Morelos Division, is the healthiest point in the ascent of Popocatepetl. Natural Toboggan Slide in the Tropics—"OLD POPO"—from snow line to crater—crater to snow line twelve miles.



CUAUTLA

CUAUTLA: Coffee, Oranges, Lemons, Bananas, Sugar, etc. Practically all the fruits and luxuriant vegetation of the "Tropical Country" may be found at this point, although the climate is most delightful at all times—a famous resort for health and pleasure.

SUGAR LANDS:—None better than on the branches of the Inter-oceanic Railway.

COFFEE LANDS:—In the vicinity of Jalapa are some of the finest coffee plantations of Mexico. Also virgin lands just as suitable.

We have no real estate department in connection with our road, but take pleasure in rendering every assistance possible to the public.

GRAZING LANDS:—Between Jalapa and Vera Cruz are excellent lands for the raising of cattle, horses, etc.

Situated on the Inter-oceanic means proximity to the large consuming centers of Mexico, and but a short distance to Vera Cruz, thus affording a home market and cheap transportation facilities for exportation.

Direct connection at Puebla with the Mexican Southern Railway for the famous Gold Fields of Oaxaca, which at present are attracting the attention of the mining world.

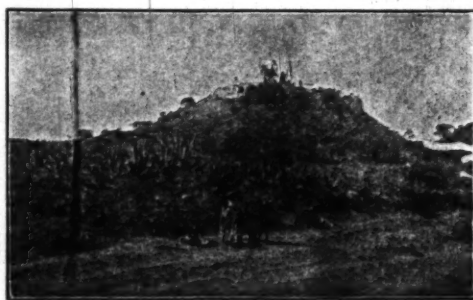
The Inter-oceanic operates its own Express Service, thereby affording prompt and reliable movement of express commodities.

GENERAL OFFICES
CITY OF MEXICO

TRAFFIC DEPARTMENT
Gante No. 12

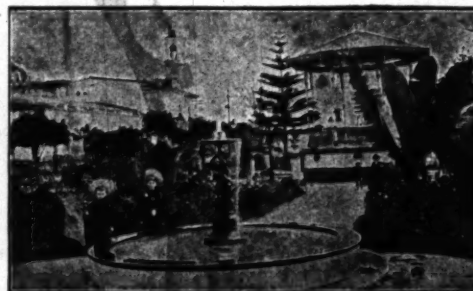
EXPRESS DEPARTMENT
Gante No. 14

TRAVEL IN COMFORT
Pullman Sleeping and Buffet Chair Cars.



CHOLULA

GREAT PYRAMID OF CHOLULA:—One of the interesting sights of Mexico. Generally supposed to have been built by the Aztecs or the Toltecs; but Ignatius Donnelly in his work "Atlantis" describes it as the "Tower of Babel." This colossal pyramid, rising from the plain, affords a view—once seen—never to be forgotten.



JALAPA

JALAPA:—Capital of the State of Vera Cruz. The delight of all tourists—ideal climate—the land of Coffee and Bananas—ferries as tall as trees.



The Mexican Railway

THE ONLY STANDARD GAUGE LINE BETWEEN

Mexico AND Vera Cruz



- 1st THE GREAT RICH EMPIRE OF THE TROPICS, INCLUDING THE STATES OF PUEBLA, VERA CRUZ, WITH DIRECT CONNECTIONS FOR OAXACA AND CHIAPAS
- 2nd THE BEAUTIFUL, HISTORIC TOWN OF PUEBLA. THE SECOND CITY IN THE REPUBLIC OF MEXICO

THE SCENIC BEAUTY of a trip over the line of THE MEXICAN RAILWAY is conceded by world-wide travelers to be THE SWITZERLAND OF AMERICA and without an equal on the North American Continent. From ESPERANZA the road descends to MALTRATA—nearly 3000 feet in a distance of less than 20 miles—passing through some of the most beautiful scenery on earth. The engineering obstacles surmounted in the construction of this road are surpassed on the Western Continent only by the Mcigs road in South America. The day train either way between Mexico and Vera Cruz passes through this wonderful scenery in daylight.

Day and Night Trains Between Mexico City and

- PUEBLA—Connecting with Mexican Southern for Oaxaca.
- PACHUCA—One of the largest and oldest mining camps in Mexico.
- ORIZABA—A great manufacturing center—called "the Manchester of Mexico."
- CORDOBA—The heart of the coffee belt and connecting with the V. C. & P.
- VERA CRUZ—Largest and most important port in Mexico.



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